



Calhoun: The NPS Institutional Archive

DSpace Repository

Theses and Dissertations | 1. Thesis and Dissertation Collection, all items

2005

The relationship and understanding between the food we eat, blood and our overall health

Irwin, Jennifer M.

http://hdl.handle.net/10945/1725

Downloaded from NPS Archive: Calhoun



http://www.nps.edu/library

Calhoun is the Naval Postgraduate School's public access digital repository for research materials and institutional publications created by the NPS community. Calhoun is named for Professor of Mathematics Guy K. Calhoun, NPS's first appointed -- and published -- scholarly author.

Dudley Knox Library / Naval Postgraduate School
411 Dyer Road / 1 University Circle
Monterey, California USA 93943

THE RELATIONSHIP AND UNDERSTANDING BETWEEN THE FOOD WE EAT, BLOOD AND OUR OVERALL HEALTH

A

Thesis

Presented to the

Faculty of

The NewSchool of Architecture

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Architecture

---

by

JENNIFER M. IRWIN

San Diego, 2005

Abstract of the Thesis

The Body Solutions Center

The Urban Balance to Health and Fitness

By
Jennifer MacBain Irwin
NewSchool of Architecture and Design
Committee Chairperson: Federico Von Borstel, Ph. D.

Topic Statement

This thesis examines how an integrative and preventative healing center is necessary for the wellness of our society and military personnel by understanding how food can react positively or negatively to someone's health depending on their blood type and the lifestyle they lead.

Problem Statement

The Health care profession predominantly focuses on curing disease while the preventative solutions are often overlooked and underestimated. Those who have 'food allergies' and what may seem to be a simple reoccurring sickness have very few places to go for guidance or real help since their problems are not considered a 'disease'. But the years of contamination could cause a complete immune system failure leading to cancer or some other life threatening disease. Our world once lived as one with nature relying on the earth's natural healing plants and foods. We were once fully dependent on it for healing but now we have isolated ourselves causing pain and confusion to not only our mind and body but to our earth and our environment. Misguided, lost and alone.

Thesis Statement

This thesis responds to the problem of medical physicians overlooking or ignoring the natural healing aspects of plants and food and how our nation has become a 'fast food' processed nation that has caused an increase in health problems and blood disorders. A holistic healing arts center and resort will combine the traditional medical practices with the alternative therapies to provide a treatment facility that is in search for the answers on an individual level. The patient or visitor will be the educated on their blood type and what types of food and fitness will be best to enhance their lives and create a daily balance for optimum wellness.

THE RELATIONSHIP AND UNDERSTANDING BETWEEN THE FOOD WE EAT, BLOOD AND OUR OVERALL HEALTH

A

Thesis

Presented to the

Faculty of

The NewSchool of Architecture

In Partial Fulfillment

Of the Requirements for the Degree of

Master of Architecture

---

by

JENNIFER M. IRWIN

San Diego, 2005

c 2005

Jennifer M. Irwin

ALL RIGHTS RESERVED

THE BODY SOLUTIONS CENTER
AN INTEGRATIVE HEALING ARTS HEALTH RETREAT
FOR THE UNITED STATES NAVY
AND THE COMMUNITY OF NEWPORT, RHODE ISLAND

A

Thesis

Presented to the

Faculty of

The NewSchool of Architecture and Design

by

Jennifer M. Irwin

Approved by:

_____

Federico von Borstel, Ph. D. Date

_____

Kurt Hunker, AIA Date

Table of Contents

List of Figures ix

Introduction 1

Statement Of The Problem 5

Background of the Problem 7

Summary 31

Thesis 33

Introduction 35

Thesis Statement 37

Theoretical Framework 39

Importance Of The Study 53

Interview with Gary McGiboney, 55

Interview with Kimberly North 58

Scope of Study 61

Definitions 62

Summary 65

Research Methodology 67

Introduction 68

Rational & Goals 70

Typological Analysis 72

Site Analysis 117

Massing 141

Conclusion 155

Findings 157

Concept Statement 159

Views 161
Plans 169
Sections/Elevations 181
Details 187
Models 197
Summary 205
CONCLUSION **207**
Discussion 209
Recommendations 211
Suggestons For Future Research 213
APPENDIX A **XVII**
References Cited xix
APPENDIX B **XXIII**
Outline Specifications xxv
APPENDIX C **XXXIII**
Code Analysis xxxiv

List of Figures

Figure	Title	Source
1.1	Hand Massage	www.corbis.com
1.2	Clay Model	Author
1.3.	Healthy villi of the small intestine	
	Damaged villi of the small intestine	
	Villi completely destroyed	Prof PJ Ciclitira
1.4	Red Blood Cells	
1.5	Historic Health Remedy Adds	http://theoldentimes.com
1.6	WWI Poster	www.pbs.org/wnet/redgold
1.7	Blood Types	nobelprize.org/bloodtyping
1.8	Blood Compostion	nobelbrize.org/bloodtyping
1.9	Food Groups Photo	www.corbis.com
1.10	Misguided Nutrition	www.corbis.com
1.11	Overweight America	www.cnn.com/health
1.12	Fenfluramine Phentermine for obesity	www.cnn.com/health
1.13	Food Guide Pyramid	
1.14	Customer Reading ingredients	Peterson, Brian
2.1	Reflexology image	www.corbis.com
2.2	Gormet Spread	The Farm
2.3	Dried Herbs	www.corbis.com
2.4.	Backache	Health Magazine
2.5	Typical Hospital Treatment Rm	The Farm
2.6	Concept sketch St Mary's Hospital	Progressive Arch. 03:92 91
2.7	Overview St Mary's Hospital	Progressive Arch. 03:92 91
2.8	Zen Painting	Crisp. Human Spaces 164
2.9	Treatment Room	Crisp. Human Spaces 167
2.10	Natural Cucumber Facial	The Farm

2.11	Treatment Room indoor/outdoor	The Farm
2.12	Aristotles Four Humours	Minter. The Healing Gardens
2.13	Greek Physician philosoper	Minter. The Healing Gardens
2.14	Treatment Room	www.cal-a-vie.com
2.15	Blackfield Microscopic Live Blood Cell analysis	naturaltherapycenter.com
2.16	Nature Setting at Cal-a-Vie	www.cal-a-vie.com
2.17	Treatmenst at Cal-a-Vie	www.cal-a-vie.com
2.18	Graphic Analysis Models & Sketches	Author
2.19	Conceptual imagery	www.corbis.com
3.1	Hands Reaching	Jay Coneyl
3.2	Thermal Baths Vals	Peter Zumthor
3.3	Kaiser Permanente	
3.4	St Mary's Hospital	www.abk.co.uk
3.5	Cal-a-Vie	Cal-a-Vie brochure
3.6	Outdoor Treatment Pavillion	The Farm
3.7	Treatment Room Whimberley Home	Human Spaces
3.8	Paulk Residence	Human Spaces
3.9-3.17	Kaiser Permanente	
3.18	Orchard Spine Concept sketch	Office of James Burnett
3.19	Circulation diagram	Author
3.20	St Mary's	www.abk.co.uk
3.21-3.24	St Mary's	Progressive Architecture
3.25	Zone Diagram	Author
3.26	Exterior Siding St Mary's	www.abk.co.uk
3.27	Arial view Cal-a-Vie	brochure
3.28-3.31	Site Sketches	Author
3.32-3.35	Cal-a-Vie	brochure

3.36	Entry to Spa	The Farm. www.mnilatimes.net
3.37-3.42	The Farm images	www.mnilatimes.net
3.43	Site Diagram	Author
3.44	Facade Wimberley Home	Human Spaces
3.45-3.46	Elevations & Plans	Living Architecture
3.47	Movement Diagram	Author
3.48-3.50	View of Wimberely Home	Fabrizio Da Rold
3.51	Paulk Residence views	Outside Arhitecture
3.53-3.54	Sections & Site Plan	James Cutler
3.55-3.56	Concept Diagrams	Author
3.57	Castle Hill Lookout	www.corbis.com
3.63	Historic map of Newport	www.newporthistorical.com
3.64	Newport imagery	www.corbis.com
3.65	Newport Bridge	Holly Stuart
3.66	Rhode Island common plants	www.horticulture.com
3.67	Old Rail line, mini shuttle	Newport Land Use Plan
3.68	Site photos	Holly Stuart
3.69	Site photos	Author
4.1	Acrylic on Canvas Bath house	Author
4.2	Acrylic on Canvas conceptual	Author
4.3	Body Images	www.corbis.com
4.4	Historic wall section	Architectural Graphic Standards





Chapter One

Introduction

THE TRUTH IS WITHIN: DESIGNING FOR INTEGRATIVE AND PREVENTATIVE WHOLE HEALING BY UNDERSTANDING HOW DIFFERENT BLOOD TYPES REACT IN A POSITIVE OR NEGATIVE WAY TO DIFFERENT FOODS WE EAT

THE BODY KNOWS AND IT S TIME TO LISTEN.

A Whole Healing Arts Center for the United States Navy could change the focus of our conventional medical facilities from the traditional reactive treatments that support the development of drugs to a more holistic approach focused on wellness, preventive therapy and whole nutrition.

The relationship between the foods we eat and our blood type is a topic that our medical community has not accepted. The ongoing investigation to scientifically prove that if diet and lifestyle are dictated by one's blood type then overall health and balance will be achieved might some day be accepted. Each of us is created differently and therefore responds individually to different diets. When food interacts with a blood type that is not compatible it could lead to malnutrition and a number of immune and blood disorders.

There is a need for the truth about the blood that runs through our bodies and how our food, the United States Department of Agriculture (USDA), the Food and Drug Administration (FDA), the American Medical Association (AMA) and our environment, can dictate and drastically influence the way we feel and act. There is a need for a place of 'whole healing' in a Healing Arts center that is focused on and around the individuals needs while providing continuous education for those in search of the truth beyond the 'food pyramid'.

Five years ago I was diagnosed with a gluten intolerance disease. It is a condition of the small intestine where certain foods particularly wheat, barley, and oats cause a nutritional disturbance by improper absorption of fats and nutrients resulting in malnutrition. Our country's nutritional guide, the food pyramid, is built on the modern grains, all of which contain gluten. Finding food to eat became very difficult for me and learning to cook without gluten was an educational and challenging experiment. When the small intestine is continually in contact with gluten it looses the capability to draw nutrients from the food leading to a downward spiral in health. This disease has recently become well known and approximately one in one hundred and thirty three Americans are finding out that they too suffer with this condition and will never be able to eat the same way again.

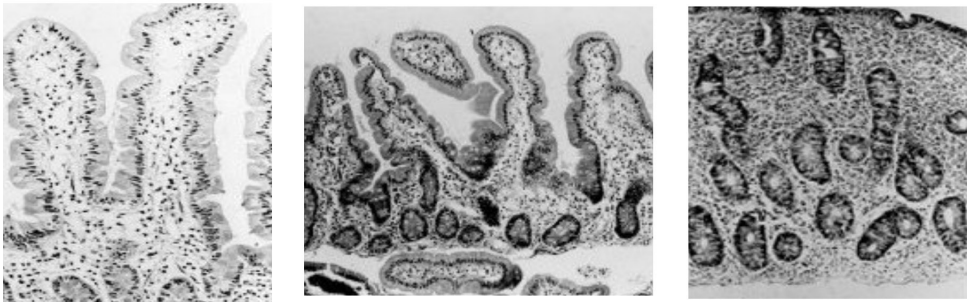


Figure 1.1 Left, healthy villi of the small intestine. Middle, damaged villi of the small intestine. Right, villi completely destroyed by the immune system. All pictures courtesy of Prof PJ Ciclitira.

This thesis will lead to a facility designed for the patient and frequent visitor. The facility's architectural style defined by nature and the journey or progression of the user will reflect a resort-healing center of peace and rejuvenation. Continuous interaction with the outside while the user progresses

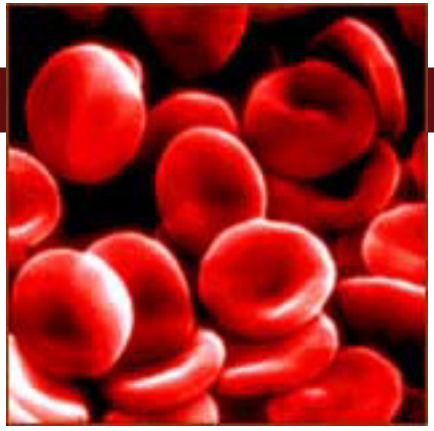
through the healing process or path to daily wellbeing. To maximize natural light and views as the structure extends from the indoors to the outdoors. To use materials that expresses the heritage of the land and provides a warm and welcoming energy efficient environment. A Transparency between the built and natural will connect us to the outdoors on every level with minimal disturbance to the surrounding environment. The use of rooftop gardens, healing gardens for all the senses, and treatment rooms that are no longer isolated from nature will provide an architectural crossing of the stark isolated medical facilities into the comforts of a healing resort.



Statement Of The Problem

The Health care profession is highly influenced by the selective information that is provided by the pharmaceutical and biochemical industries. These industries are driven by market sales and when a moneymaking industry is providing knowledge to our healthcare facilities the whole truth is left out or unknown and the American society is left in the dark. A typical Doctors education is based on the study of disease rather than preventative healing. Studies have shown that there is a relationship between blood type, food and health but this remains unspoken in the medical profession and other large health organizations. Our food supply has been compromised and Nutritionist and food preparers seem to lack the education in safe preparation of foods for common 'food allergies' or intolerances. Those who have 'food allergies' have very few places to go for guidance or help since it is not considered a 'disease' until the years of contamination cause a complete immune system failure and cancer. Our world once lived as one with nature relying on the earth's natural healing plants and foods. We were once fully dependent on nature for healing but now we have isolated ourselves causing pain and confusion to not only our mind and body but to our earth and our environment.

Misguided, lost and alone.



Background of the Problem

Blood type, a marker for an individual's internal chemistry is the key to opening the door on health of the mind and body. Each person has a different or unique physiology and biochemical make up that can only be fully understood by listening and responding naturally to the requests of the body. To begin the journey you might wonder what your blood type is and where it came from. Blood type is genetically inherited like the color of your eyes or your hair and at one time you could say that different blood types were based on geographical location around the world and the basis for the make up of different races. That statement might have held some truth in ancient times, but the diversity of our world and the societal function has brought us to a mixture of all throughout. However some blood types are more prevalent in certain parts of the world. Boyd (1955) states that in Asia the prominent blood type is type B, some American Indians tribes are mostly type O with a few type A or just the opposite in another tribe, and in general across the globe blood type O is the most common, followed by A, B then AB.

The geographical perspective of blood type and race is based on the local agriculture. There is a reason why different foods grow in different climates and those that cultivated and lived off the land adapted a healthy lifestyle based on the natural elements surrounding their homes. As civilizations, migration and agriculture grew they were introduced to new foods of other lands and many of these foods were toxic to their bodies and disease became more prevalent.

What is the fascination with blood and why have there been so many studies and investigations? As early as 2500 BC the search began to understand the internal composition of the body, which has been a mystery then and still today especially to the unscientific. The assumptions were that blood had everything to do with health, but how? Early practices of blood letting are seen in the tomb illustrations in Egypt and continued for hundreds of years in the belief that the blood was carrying the contamination that caused the disease and if let out of the body the person would begin to regain health. Minter (1993:10) stated, “The Egyptians also maintained parallel beliefs in the supernatural and in the natural causes of illness, and developed the widespread cultivation of drug plants, becoming the chief exporters of opium in Roman times.” The Opium poppy was found to have morphine, which was used as a painkiller for centuries.

It wasn’t until 400 BC that the preeminent physician of antiquity, Hippocrates influenced by the Greek philosopher Empedocles of Sicily, believed that the body comprised the four humors in relation to the four elements, earth, fire, air, and water. Greece, Aristotle (384-322 BC) continued the theory of Hippocrates, as the first ‘logical’ view of the human body. When the four humors, blood, phlegm, black bile and yellow bile are in balance individual optimum health would be achieved. Aristotle’s ideas are taken a step further in the works of Theophrastus (371-287 BC) who described 550 species of plants and their medicinal uses in achieving the balance of the humors and lead the way for the Art of Ancient Healing. The Romans based their medical systems on the Greece and adopted De Materia Medica written by Dioscorides (AD 40-90), a Greek Army Physician who coded his knowledge of Medicinial Plants to create a medical system with the use of over 600 plants. This plant-based drug system became the standard in Europe into Medieval Times and was also used

by Galen.

Full understanding of what blood was or if and how it traveled through the body was not hypothesized on until approximately 200 BC and later by Claudius Galenus, known as Galen. His ideas and discoveries through the experimental dissection of animals became the core of the medical field for centuries.

Developments and discoveries continued on this long road of new science but straying off too far from the accepted 'truths' was an act against the Trinity and the death penalty was given to burn at the stake. Who is to stay what these accepted 'truths' about the human body are? And how many discoveries have been shut down rejected and unexplored because of this early form of governmental control? The Renaissance period (1300-1600) was an era of conceptual change within the world as well as the medical system. Two paths formed, the astrology path in continuation with the theories of Hippocratic and Aristotle's based on the human being as a microcosm affected by the heavens, the macrocosm, and the path of 'Man and the machine.' Leonardo da Vinci (1452-1519) portrayed the human body in a calculated way like no one had seen, as well as the writings from the French philosopher and mathematician Rene Descartes (1596-1650) lead to increased anatomical studies and the development of the first surgical instruments for the use of dissection.

Other views began to arise like the view of Paracelsus (1493-1541), a Swiss Physician who believed that the body functioned as a model of the chemical reactions of the entire universe. With this in mind, illness would come from chemical imbalances and therefore the cure would be found in chemicals such as mercury and antimony, now known to be highly toxic. This is an early example of practice with chemical cures, which is not much different from what our Food and Drug Association and American Medical Association are



approving as so called cures.

While all the big physicians were busy trying to figure out a way to transfer blood to those dying from war wounds or those with blood disorders, the small town doctors were working on home remedies in varying forms. A vintage graphic of early attempts to understand blood and what the blood needs to regain health. The advertisement read, "Peruvian Syrup makes the Weak Strong & Expels Disease By Adding Iron to the Blood" J.S. Dinsmore, The bath Daily Times, Maine, May 8, 1872. It might have helped those with iron deficiencies or anemia but not an overall cure of disease. The Green Mountain Cathartic published September of 1881 in the Kansas City, Missouri, Kansas Free Press was one of the early forms of a pill to take away the headaches, depression, constipation and other illnesses.

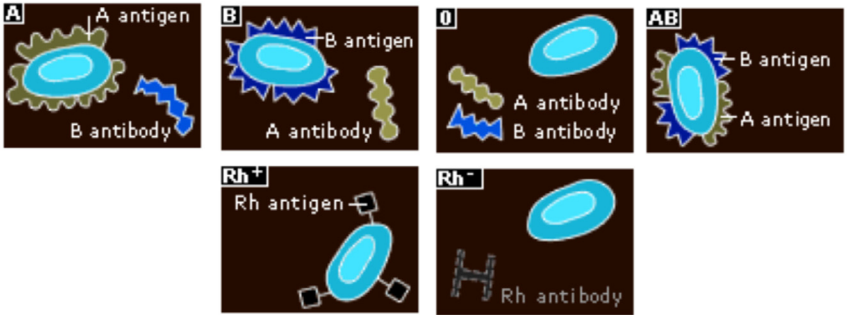
The knowledge of actual blood types did not surface until the early 1900's after many failed attempted blood transfusions not only from human to human but also animal to human. In 1902 the Austrian physician Karl Landsteiner published a paper detailing the findings of 3 distinct blood types, originally called A, B and C, later named O. In 1902 he and his colleagues Alfred von Decastello and Adriano Sturli identified the fourth blood type, AB. The premises of their findings were based on how each blood sample reacted to a certain type of serum and if the blood would agglutinate, clump together or not. His findings were not completely recognized or acknowledged until eight years after his discovery and in 1909 human blood was officially classified into the four blood types known today as A, B, AB and O. This discovery and acceptance made it



possible for blood transfusions to be made successfully. Many lives were saved during World War I that the practice expanded to all hospitals and eventually the establishment of blood banks. The first attempts at tampering with blood took place in 1914 when researchers Albert Hustin of Brussels and Luis Agote of Buenos Aires added a sodium citrate to prevent the blood from clotting. This allowed blood to keep longer for transport. Two years later Francis Peyton Rous and J.R. Turner developed a citrate-glucose solution that extended the life of blood even longer allowing it to keep for a few weeks after collection.



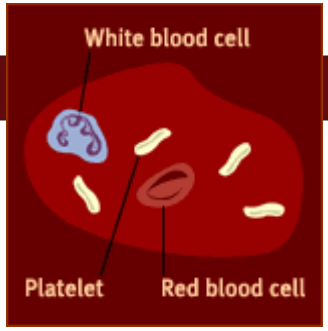
Safe blood transfusion made an enormous contribution especially during World War I to the medical field allowing many to survive life threatening blood disorders and near fatal injuries. But death still occurred during transfusions as well as during birth for unknown reasons. Further developments in technology and experimentation with the red blood cells of Rhesus monkeys lead Dr Karl Landsteiner and Alex Wiener to the discovery of the Rh blood group in 1940. Each blood type will either have a presence of the Rh antigen therefore calling it positive or it will lack the antigen, calling it negative. A blood type that interacts with a different blood type will destroy the life that it swims through, now a known fact. If a Rh negative blood type is unable to receive blood from a Rh positive blood, the Rh negative blood will build-up Rh antibodies against the foreign blood which causes clumping or what is called agglutination of the blood cells that leads to serious complications. As seen in a fetus within a Rh negative mother, if the fetus comes from a Rh positive father and the blood in the fetus is positive there will be complications during the pregnancy and the child most likely will be aborted by the mothers build up of Rh antibodies against the babies foreign blood type. There are over 20 genetically coded blood types but for the purpose of save blood transfusion



the most useful is the ABO and Rh typing.

The question remains, what is blood and specifically what is blood type, and why is it important to know your type and how it relates to food? The majority of the population doesn't know what their blood type is unless they have been diagnosed with a life threatening blood disorder or disease. If our blood is like the earth's water then it is not hard to see that if there is a lack of water or a contamination to the water supply then the earth suffers and eventually will die. Then the same theory should hold true about human beings and their life source, their blood. As shown above in Figure 1.2 blood type A is made up of A antigen with B antibody in the plasma, and blood type B has B antigen and A antibody. According to the American Heritage dictionary, an antigen is any substance that when introduced into the body, stimulates the production of an antibody. Because of the opposing antibodies within the plasma, these two blood types cannot receive blood from each other. But as you notice in blood type AB it has both A and B antigen attached to the surface of the red blood cell and no antibodies within the plasma, therefore it is considered the universal accepter and can receive blood successfully from all blood types. On the opposite side of AB there is blood type O, which has no antigens but both A and B antibodies making this blood type the universal donor.

Blood consists of several types of cells floating around in a watery fluid



called plasma. There are red blood cells, white blood cells and platelets. The red blood cells carry oxygen from the lungs throughout the body. The white bloods cells are designed to fight off infectious disease and the platelets help clotting. Blood cells come from our red bone marrow, which is within our bones and made up of fat, blood and special cells that turn into various kinds of blood cells. Children produce blood from all of their bones and as they age the primary red cell producing bones remaining are the spine, ribs and pelvis. Red blood cells are created continuously and have a shorter life span then the white blood cells. It is critical that in order to create red blood cells a good diet is expected and needed. Everything needs some sort of food to survive. If the food supply is contaminated the body must spend its energy fighting off unnatural invaders and infection while the production of new red blood cells stands at risk. Wilson (2002) stated, “The body has a feedback system that tells it when to make new red blood cells. If bodily oxygen levels are low (as they would be if there are too few red blood cells circulating), the kidneys produce a hormone called erythropoietin, which stimulates the stem cells in the marrow to produce more red blood cells.” If one of these actions is out of balance the whole system could be jeopardized and disease will gain an invitation.

Up to the mid nineteen hundreds, the medical profession became comfortable with the their understanding and theories about blood and how it reacts to other blood types. The medical profession was able to safely conduct blood transfusion to fight off disease but still no studies were held to investigate the root of the problem.

Dr Peter D’Adamo, a naturopath(N.D.) specialist has been studying blood and disease for over 20 years. His father, Dr James D’Adamo Sr. N.D.,

began his study around 1940 on this topic where he gathered hundreds of personal case studies documented on how different people responded to different diets. Dr D'Adamo felt he could take his fathers research further with the technological advances and begin to prove his theories scientifically.

> I believed that no two people on the face of the earth were alike; no two people have the same fingerprints, lip prints, or voice prints. Not two blades of grass or snowflakes are alike. Because I felt that all people were different from one another; I did not think it was logical that they should eat the same foods. It became clear to me that since each person was housed in a special body with different strengths, weaknesses, and nutritional requirements, the only way to maintain health or cure illness was to accommodate to that particular patient's specific needs. (Dr. James D'Adamo 1996:xiii)

Dr Peter D'Adamo is the author of 'Eat Right 4 your Type' and many follow on blood type diet books. He believes what his father believed, that the key to survival is in our genetic fingerprint that has evolved over time in response to not only our own physiologic developments but also in climatic changes. Understanding where each blood type comes from on a time line of existence will better aid in the understanding of why the food we eat must be compatible to this genetic code. There is more to blood then just the ability to transfer it from one patient to the next. The scientific medical focus all along of our top philosophers, physicians, theorists and scientists has been on blood transfusion as seen in the history of blood discoveries. Prevention of disease based on nutrition has not been mainstream for centuries and it is time to change. When Dr. D'Adamo picked up where his father left off he knew he need to find some scientific knowledge that linked blood to certain diseases and after extensive and deep research he finally came across studies that gave proof to

three different diseases that were linked to one particular blood type. The first was the peptic ulcer found in O blood type patients, the blood type that contains the highest amount of acid in the stomach, hence the ability to efficiently digest red meats. The second disease was found common in blood type A, stomach cancer that is linked to low levels of stomach-acid production lacking the ability to absorb nutrients. This was on the lines of all of his fathers' studies giving Dr. D'Adamo the hope and beginnings to continue his work on a scientific base.



Along with the discoveries of blood over the centuries there has always been a fascination with nutrition, especially in America. Towards the end of the 11th century after the "Dark Ages" came to an end food became more abundant and people began to believe that eating well could lengthen life. At that time the most popular diet was the Regimen Santitatis Salernitanum, a product from the medical school in Salerno, Italy. This Regimen was in line with Hippocrates theory on the four bodily humors. The diet recommended that food be balanced with character dispositions; for example, hot tempered/blooded men should not eat spices or onions. This may sound silly today but there is truth to the concept. This Regime, diet, was followed for centuries in Europe and because of that the people stayed healthy and lived longer. The Europeans have appeared to be in good health and fitness with very few cases of obesity and yet they don't concern themselves with calorie, protein, fat and carbohydrate counting, they have always eaten for social interaction and enjoyment until more recent globalization changes.

In America there has always been an abundant food supply, and at one time most people engaged in hard labor where their bodies craved large

amounts of meat and protein to regain their strength at the end of a hard days work. The progressive lifestyle change has taken hold of most Americans, where technology and machines are doing the hard work while the people lead more of a sedentary lifestyle while continuing to eat large portions of foods. Globalization and the increased use of genetically and hormone modified (GMO/HMO) foods have triggered a worldwide change in the way food and nutrition is approached. The danger of this type of food manipulation is cross-pollinated around the globe and studies are showing increased health problems as a possible result. The Europeans are now becoming more concerned about the safety and nutritive value of their food supply. One of the largest contributors to the problems world wide on mal-nutrition and obesity is the fast food chains that are popping up daily in every city and town across the globe. More than sixty percent of Americans don't exercise and are dependent on their vehicles to take them everywhere. A large percentage of these people frequent fast food 'joints' three to four times a week.

In the 18th century food was produced and consumed from local agriculture, an era prior to rail transportation, large trade routes and preservatives to keep food fresh during transport over distance. And probably the last time food was truly 'natural'. Changed views on what Americans were eating surfaced during the early 19th century, the affects of the Industrial revolution. The growing cities, increase in transportation via canal barges, wagon roads and railroads allowed products to travel longer distance. Since bread was large part of the American diet the first attempts were made to alter its state for ease of travel. Bread was bolted (processed) to remove some of the bran, nutrients, and lighten its color, which made the bread lighter for transport. This was just the beginning of 'bolted' foods and severe health problems.

Sylvester Graham, born in 1797, was inspired by the theory of the Frenchman Francois J.V. Broussois “who believed that fibers in the stomach and intestines could be over stimulated and that negative impulses could then be transferred via the nerves to other parts of the body.” (Roth 2000:2). Graham was one of the first to protest against some of the effects of industrialism. He believed that there is a ‘body ecology’, a system of waste and repair of the vital force and with a healthy diet the loss in the digestive process and the renewal from the energy in the ingested food would reach a balance. Roth (2000:2) noted that “Graham knew nothing about vitamins, but in bolted bread he found a symptom of humanity’s falling away from divine and natural laws, which he believed were the same. Over a 100 years later, counter culturists of the 1960’s would also place great emphasis on natural bread…”

Grahamism of the mid 1800’s was the forerunner of the 1960’s organic commune movement but was forgotten after the Civil War when the upper middle classes indulged on a grand scale and well to do women were actually taught how to eat to make them plump. One of the early books written by physicians for women was titled How to be Plump. In 1888 W.O. Atwater, a professor at Wesleyan University, became the first director of the U.S. Department of Agriculture’s (USDA) office of experiment stations and was known as the father of modern American nutrition. He adopted the discoveries of German chemist Justus von Liebig on separating foods for better understanding. He broke down food into proteins, fats and carbohydrates, the foundation for modern study of nutrition. Societies fascination with faddish diets and eating disorders became apparent.

Year after year there seems to be a new diet out there. New guidance on what not to eat and how many different ways we can break down our food groups. After W.O. Atwater established his breakdown of food it gave him a

better understanding of types of food that had similar proteins and with that information he recommended to the Public that they eat beans and lentils instead of meat. This was his way of helping the poor afford food that was thought to have the same value as meat, the 'poor people's diet of the Old World'. In 1860 the New Nutritionist was an organization that knew nothing about vitamins and therefore recommended that factory workers cut back on fruits and many vegetables. What this did was dismiss all nutritional wisdom that was embodied in immigrant diets and in a 'sweat shop' environment as the factory setting illness prevailed. This program of social reform did help the middle class problems of "dyspepsia", a gastrointestinal ailment that began to rise in the late 19th century. Knowledge was now reaching the middle-class housewives as well as the influence of commercial fads such as the slimmer "Gibson Girl" as well as the waistless "Flapper" look of the 1920's. It was no longer in style to be plump and women began dieting and following advice that was run by commercialization and marketing.

Another drastic change in the American diet came about when Dr. John Harvey Kellogg and his brother William invented the "Corn Flakes" cereal. The American breakfast became a grain instead of meat, and not a whole grain but a processed grain. It is an interesting fact that most children today begin to have serious food allergies and intolerances once cereal is introduced into their diet. Grahamism was not fond of the new corn flake and was certain while studying the problems with digestion that many illnesses were caused by a bacteria found in the colon, called "auto-intoxication" that he linked to Kellogg.

The Food Administration has a way of convincing the public on what is good and healthy to eat based on either a shortage of food due to War efforts or an economic pitfall in the country. This was first seen by Herbert Hoover who took the advice of the New Nutritionist during World War I to conserve beef and



wheat by substituting the soldier's diets with beans and other grains. He also convinced the rest of the American public to simplify their diets for better health, which wasn't the result.

In the 1920's another nutritional group was formed called the "Newer Nutrition" based on the nutritional value of a diet with fruits, vegetables and milk. This group was the first to introduce vitamins. The food industry snatched the concept up as leverage to better market their foods that were then being enhanced with certain vitamins. (Roth:2000) stated, "Vitamins were a boon to food companies seeking ways to differentiate their products from those of competitors." Maybe initially these companies genuinely wanted to enrich their foods to better feed the public but what started as good lead the path to continued food manipulation and control throughout America.

During the late 1940's and into 1950 America was considered the best-fed nation. It was referred to as the "Golden" years for the food chemistry industry when hundreds of additives and preservatives were introduced on the market.



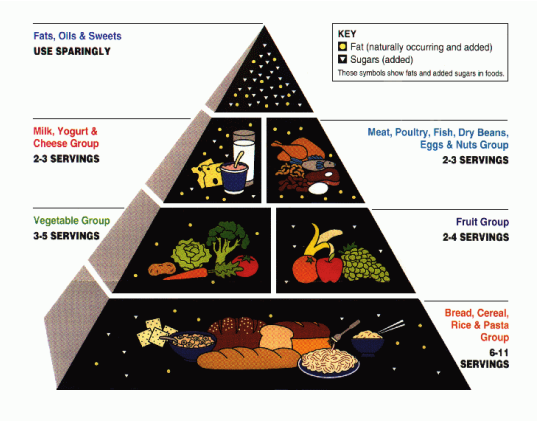
Monosodium Glutamate (MSG) became the countries leading food enhancer and in 1940 it was discovered in the laboratories and used in various forms, the most prevalent was as a food enhancer and preservative. At the time of discovery it was a miracle spice that made all food taste better and it was used on everything until the side affects began to surface. Everyone was looking for ease, convenience and food that stimulate the taste buds beyond belief. At this point the downward spiral began; more health problems, more diets, additional food labeling of ingredients, false labeling of ingredients, obesity, cancer and the list goes on. The one fact that all nutritionist, the USDA, and FDA are missing is the individuals' needs. "Everything the experts tell us about diet is aimed at the whole population, and we are not all the same." (The Scientist, Sep. 22, 2003.)

The answer is not in the drugs that will help cut the obesity problem down but rather it is in the food and exercise that can be tailored to the individual based on their blood type and ancestry background.

Nutrition has grown or evolved from the New Nutrition (limiting the intake of food) group to the Newer Nutrition (eating vitamin-enriched foods) group to the Selective Nutrition group prior to the government taking over the American health and Nutrition completely. The Selective Nutrition was directed at drastically reducing the intake of foods that contained specific "harmful" elements. This was a group targeting the influx of chemicals in the food supply with blatant disregard for Atwaters, USDA "four basic food groups".



Figures: Above, Obesity. Right, Fenfluramine & Phentermine are now prescribed for obesity



(Roth:2000) points out that "…for here was a harmful element (cholesterol) that was strongly associated with one of the basic groups (milk products). A few years later, meat products, another basic food group, would come under suspicion because of the presence of saturated fats, another contributor to heart disease." These concerns eventually led the USDA in producing the Food Guide Pyramid in 1992. The guide was based off of the 1980 USDA and Health and Human Services Dietary Guidelines for Americans and the Senate's Dietary Goals for the United States. After multiple versions of this pyramid the one shown below is still enforced today throughout the military and general public and remains a generic way to address the whole public, not the individual.

Nutrition was launched into the headlines and yet remains a mystery to most of the general public with an increased awareness to find out what our food is made of. A small percentage of the population has begun reading labels but do these labels tell the whole truth? What was stated has healthy yesterday has changed today. The controversial and conflicting nature of what is right for the public leaves them lost. With the rise of the Organic farming, the Organic consumers association and naturopathic specialists such as Dr. D'Adamo the link from highly beneficial foods to the individuals' blood type might be accepted as a way of life.



Figures: Above USDA Food Guide Pyramid. Left, Photo by Brian F. Peterson, Awareness in label reading.

Roth is beginning to scratch the surface on this theory when he stated,

Selective Nutritionism remained the reigning paradigm in the 1990's but in recent years has acquired a slightly different accent. Researchers are now discovering more foods and drinks that may have very specific beneficial effects…In the meantime, we may continue to discover more foods that can possibly protect against specific diseased or slow the aging process and thereby allow Americans to eat more enjoyably and with less guilt and anxiety. (Roth:2000).

Authors background

Since the day I was born, December 13, 1970 I have been in and out of hospitals more times than I can remember. I have always disliked everything about hospitals. The cold feeling I got when I walked in the door into the stark and lifeless exam room left me feeling alone and at the mercy of a doctor who relied on modern medicine, drugs, to cover up my illness. A few years ago my mother handed me a small blue book titled "Your Baby's Health Record." In this blue book my mother recorded almost every visit that I had made to a doctors office from the moment I was born with jaundice, to the end of my sophomore year at the University. I am the youngest of four children and the one with a weak immune system. Reading through the events of my life is giving me a better understanding of why I now eat the way I do and how I have traveled this long road to good and consistent health. I thank my mother from the bottom of my heart for taking such good care for me and always questioning the doctors while searching for answers.

In the first five years of my life I was in the doctors office almost weekly for reoccurring fevers, body rashes, swelling in the throat and face, pussy eyes and sinus infections, all of which were treated with penicillin with no answers to the root of the problem. It began at birth with jaundice, a yellowish discoloration of tissues and bodily fluids with bile pigment caused by any of several pathological conditions in which normal processing of bile is interrupted (American Heritage Dictionary, 1980). My assumption of why a child would be born with this condition has to do with the mothers and the childs' blood type. My mother is O negative and I am O positive therefore during my mothers' pregnancy her blood was building up Rh antibodies against my blood in an attempt to reject me. Modern medicine has given the medical profession insight

to this sort of condition and now will administer a shot of Rhogam to the mother around the seventh month of pregnancy and then possible again three days prior to birth to ensure safe delivery.

> Because the effects of Rh antibodies are cumulative (building in your system each time your body is infused with positive blood), there is very little risk that your first Rh-positive conception will be affected. In fact, most of the time serious problems don't set in until after the second or third Rh-positive pregnancy. Today, however, precautions can be taken to protect these pregnancies as well. Among the most important is the Rhogam injection, a treatment that absorbs any Rh-positive blood cells that enter an Rh-negative system, offsetting the body's need to manufacture antibodies. (Laurensen and Bouchez 2000:203).

A perfect example of the build up in Rh antibodies is seen with my mothers' deliveries. Because my father is O positive the chances for my mother to have a child with Rh-positive blood is great. Her first child, my brother Brent, was born without a problem. He was O negative. The second child, my sister Sheilah, was O positive and was a malnourished child who almost died in her first year of life. The third child was miscarried and the blood type was not identified but from what I understand my mothers' blood had built up enough Rh antibodies over the two pregnancies, most likely both positive, that her body rejected the baby and Rhogam was not administered. The fourth child is my sister Alison who is also O negative. This was probably one of my mothers easier births and Alison has been one healthy person all of her life. With my birth, the fifth pregnancy, there were Rh antibodies built up but not enough to reject my positive blood but because of the presence of these antibodies I believe has been the reason for my unexplained sensitivities to different foods, plants and chemicals.

The only link to food that was mentioned in my baby health record was Dr C. Harleys' interest to treat me for milk allergies with some kind of injection and then drops for the next year and a half. I was a year old and came to him with a fever of 103.8, rash on arms, legs and stomach, bad breath, viral infection, yellow and green discharge of the nose and mucus on the throat. He had me tested twice for milk allergies and my mother took me off milk. The problems were gone in three days. My mother wrote, "as of December 72, Jennifer has been off regular cows milk. Started certified raw milk April 15, 1972. Doing well on it. Drinks a lot. Aug 23ish 1972 tired giving reg. Cows milk. Has B.M's with each dose. Smelly. little appetite."

In 1974 my symptoms returned and this time developed to asthmatic bronchitis according to Dr Hawley. He attributed this to an allergy to grass and said the grass season was causing my swelling. I remember playing with my friends rolling around on the grass and getting a serious allergy attack that kept me indoors for the next few days. This reaction was a surface reaction that I still get to this day if I spend too much time on the grass but the internal problems continued to persist. Dr Hawley prescribed norisodrine and abosrbic acid in doses. From November of 1974 until February of 1975 I had a case of impetigo in my nostrils. Impetigo is a contagious skin disease that has pustules that burst and form thick yellow crusts. Over that time I was treated with v-cillink, a penicillin, keflex and polysporin ointment. None of which seem to scratch the surface on curing this problem that continued to persist throughout my childhood and into my early years of adulthood.

A year later in 1976 I contracted scarlet fever, mostly diagnosed in children. It was only a matter of time before all of my previous health conditions would aide in this acute contagious disease caused by a hemolytic streptococcus (pathogenic bacteria) characterized by a scarlet skin eruption

and high fever would occur. Still the doctors are looking on the surface and not understanding that something is wrong on the inside that is manifesting itself on the exterior and they prescribed another dosage of penicillin.

In those first few years I was seen by two different doctors continuously and it wasn't until I had five attacks within an eight month period, two of which were tonsillitis, that my mother started to seek other help and took me for my first visit to Dr Larmare, an ear nose and throat specialist at the age of six. This is when all the testing began. They tested me for strep throat, mono, urine infections and just about everything they could think of and all test came up negative. My concerned mother began to questioned if this was really the choice medication. Dr Larmares response was to operate and remove my tonsils and adenoids. She did not like that answer but wasn't given any other choices so at age 6 I had my first line of defense in fighting off disease removed from my body. A day after I returned from the hospital a fever turned into the flu and again penicillin was given.

I wish I could say after all that everything was fine and no more incidents occurred but I can't. I learned to live with sickness and accept it as a severe case of allergies that sometimes lead to infections barely kept under control by antibiotics. But by the time I turned 16 the sinus and throat infections became steadily worse and the abdominal pains were added to the list of discomfort. During my University days I had several bad cases where my mother drove down from Los Alamos to take care of me in my dorm room. There in Albuquerque she took me to another ear nose and throat specialist, who ran tubes up my nose and down my stomach, pricked me, probed me, tested me, in invasive ways and still nothing. The next step at that point was to test my thyroid since I was always exhausted and on my way to becoming fatigued. The test came back that indicated a hint of low thyroid but not enough to really treat

with anything and his solution was to operate on my nose. At the time I was desperate for some relief but if I knew then what I know now I would have never gone through with such a silly operation. This doctor believed that I had small nasal passages and that this might be the root to my problem, but no guarantee, he suggested going in my nostrils and scrapping away the tissue to widen the passages. This was the worst and most invasive experience I had to date. I ended up being bed ridden for about a week and could not function as my sister changed the blood drench gauze every few hours. I don't know how anyone would go through elective surgery just to have a so-called better looking nose.

The surgery was a temporary fix but it did give me some relief for a short period of time. It wasn't until about 5 years after my graduation that the situation arose again. This time the infections occurred monthly and the antibiotics started taking their toll. I remember having to do antibiotics back to back because the first set of 10 days didn't kill the infection.

Thanks to my mom I have always had a healthy diet. My mom was a 'health nut' growing up and she kept junk food and sugar out of our home and diets. I have eaten healthy and have been an athlete all my life, which made it hard to understand why I had to battle so many illnesses. My friends would comment, "for someone so healthy and fit you sure are sick all the time." Working out use to make me feel stronger and give me energy but things began to change and I would become lethargic and sleepy right after a good workout. I knew something had to change. It was the year 2000 when I had the worst case I have had to date. I was living in San Diego working at the Naval Station when I woke up with the worst swelling I had ever seen in my throat. My throat was swollen out so far that I no longer had a chin, I couldn't lift my head up straight without serious pain and the lump on the outside of my throat was extremely painful to the touch. Along with that I had pains in my stomach that would shoot

down my legs if touched, so I laid curled up on the sofa for two days unable to make it find the energy to drive myself down to medical.

This time I didn't want to go to the naval medical hospital. But I knew that the infection was out of control and the only way to reverse it would be antibiotics again. I went and was treated but the physicians assistant (PA) who saw me didn't have a clue of why I was having this problem. I asked him to refer me to an ear nose throat specialist because I had been through this before but he hesitated and said that I would have to make an appointment with one of the physicians at their clinic before they would refer me to a specialist in Balboa. At that point I didn't have the time to be bounced around from one doc to the next so I had to explain to him my history with this problem in hopes that he would send me to Balboa and out of sympathy he did. When I saw the specialist it was like 1991 all over again with tubes up my nostrils and down my throat without a clue to why the problem existed. I was shuffled around to a few different 'specialist' at the hospital before I decided to seek help outside of the military hospitals and clinics and find a holistic center that might be able to find the root to the problem. Once I did this my whole life changed in an instant. I met with a holistic chiropractor in Hillcrest and after listening to my story and giving me a check up he didn't hesitate one second to inform me that I had a gluten intolerance and I needed to change my diet immediately to a blood type diet that is gluten and wheat free. He wanted to do some further blood test and saliva test to confirm. Once he saw the results of my blood tests he found I was anemic but not in iron, instead B12 and folic acid.

I began taking homeopathic B12 and folic acid, eliminated all wheat and gluten products and saw tremendous results. For the first time in the record of my health a doctor pinpointed my problems to food. I always ate well just not the right foods. As seen in the title of Dr. James D'Adamo's book on a

revolutionary new method of natural healing based on personal blood types, “One Man’s Food…is someone else’s poison.” (1980).

I have now been on the O blood type diet for four years and it has not only taken away my digestive and sinus infection problems, but it has also renewed my energy and given me the ability to focus again with a burning desire to help other people who suffer understand how they can have optimum health again.

Summary

The key to surviving in an ever-changing society and environment is our food and nutrition. Our government and medical community must begin to integrate the natural healing methods with modern scientific technology to emphasis wellness, prevention and wholesome nutrition, always keeping in mind that “One man’s food is someone else’s poison” (Dr James D’Adamo:1980). To architecturally create a place that can be integrated into the urban complex to service those in need of healing, understanding, and renewed hope, is achievable. The goal would be to create a place for a cleansing and educational process to begin as you learn to live a simple balanced non-processed lifestyle, while taking a new outlook on life. And what better way then to take an old abandoned broken down lifeless building and heal it as well as the surrounding land and environment.

Fast paced, invasive and economically driven technology has become a danger to our health, our food lines, and the world we live in and something must be done about it.

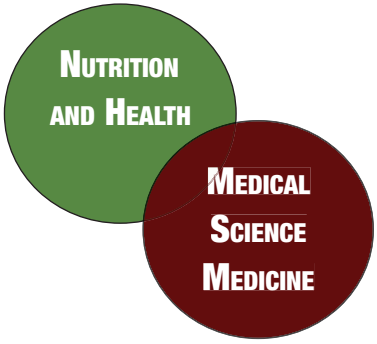


Chapter Two

THESIS

Introduction

To understand the whole process of healing the following disciplines must be carefully dissected. There is a long history of knowledge found in the medical sciences and medicine. Discoveries beyond belief and how these discoveries have impacted the path we have chosen for healing and health. While technology has saved many lives there are aspects that have corrupted our natural ability to heal ourselves. Nutrition and Health also have a long history of events and largely filled with guess-work on what is the right way while being controlled by the government who claims to have the publics best interest at heart. The ideas and concepts are educational but in all cases the individual is left by the way side. The Agricultural Industry has also been affected by technology and governmental control now allowing an abundance of chemical engineering to take place. Food composition is critical in providing the right amount of nutrients to the chemical composition of the body yet when genetically modified organisms are the product of our state-of-the-art technological advances, new and foreign elements are introduced into the human body. And we wonder why diseases and obesity are more prevalent in today's world.



Thesis Statement

This thesis responds to the problem of medical physicians overlooking or ignoring the natural healing aspects of plants and food and how our nation has become a 'fast food' processed nation that has caused an increase in health problems and blood disorders. A holistic healing arts center and resort will combine the traditional medical practices with the alternative therapies to provide a treatment facility that is in search for the answers on an individual level. The patient or visitor will be the educated on their blood type and what types of food and fitness will be best to enhance their lives and create a daily balance for optimum wellness.



Gormet healthy Spread for patients and visitors of The Farm, Phillipines.

610 medical sciences, medicine

611 human anatomy, cytology, histology

612 human physiology

612.1 blood and circulation

612.2 respiration

612.3 digestion

612.4 secretion, excretion, related functions

613 promotion of health

613. 2 dietetics, nutrition

Blood type diet

613.482 health

613.7 physical fitness

614 incidence of prevention of disease

614.4 incidence of and public measures to prevent diseases

Healing with whole foods

614.5 incidence of and public measures to prevent specific

Diseases and kinds of diseases

615 pharmacology and therapeutics

615.5 therapeutics

615.8 specific therapies and kinds of therapies

615.9 toxicology

616 diseases

616.3 diseases of digestive system

celiac disease

616.4 diseases of blood-forming lymphatic, glandular systems

diseases of the endocrine system

618.5 Complicated Labor

630 agriculture

632 plant injuries, diseases, pests

633.1 Cereal Grains

633.8 Other crops grown for industrial processing

635 gardens crops (horticulture)

637 processing dairy and related products

581.2 Pathology of Plants

Herbalism

640 Home Economics and Family Living

640.73 Consumer Education

641.1 Applied Nutrition

641.3 Food

660 chemical engineering

661 industrial chemicals and technology

663 beverage technology

664 food technology

668 technology of other organic products

712 Landscape Architecture

Healing Gardens

714 Water Features

Holistic Healing Arts Center and Resort

Blood type clinic

Whole truth education



Disciplinary Track #1

Medical science 610

Hospitals

Healthcare centers

Branch clinics

Promotion of health 613

Alternative therapies

Integrative complementary and Alternative therapy clinics

Health 613.482

Pathology 574.2

Hotel and Resort/retreat spa

Destination spa

Day spa

Medical spa

Healing Gardens

Holistic Healing Arts Center and Resort

Disciplinary Track #2

Medical science 610

Blood and circulation 612.1

Digestion 612.3

Secretion, excretion, related functions 612.4

Dietetics, nutrition 613.2

Health 613.482

Evolution and genetics of humankind 573.2

Pathology 574.2

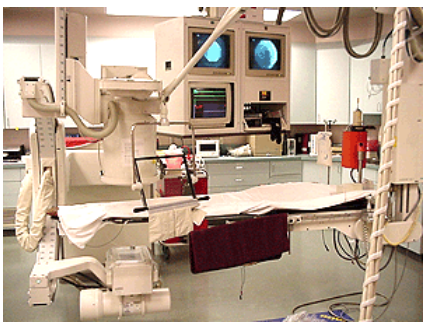
Incidence of prevention of disease 614.5

Blood type clinic



The evolution of medical science and medicine over the centuries has formed the way patients are treated today and how the facilities have been designed. There was a slow transition from the use of medicinal healing gardens that had patients continuously interacting with the outdoors to complete isolation from the elements. Ideas of the outdoors contaminating a space put large constrictions on hospital designs in maintaining a sterile environment. Sterile is important in a surgery space to avoid infections that could cause death but for a patient who is recovering or one that is going in for a regular visit or minor health problem should not be shoved into a box with no natural light and no sense of place.

The larger traditional hospitals were built from a boilerplate design for years that could be adapted to basically any site of choice but few if any environmental considerations. This is a similar tactic that many military facilities are built by to save costs. “Don’t reinvent the wheel” is the common saying. In some cases this works just fine but when you are talking about designing a facility that will care for people the boilerplate will not work and the design must be from the patients viewpoint. Any care facility is just as individual as the person. In the past 10 years there has been a small shift in hospital designs as see in a few projects around the world that have actually taken a patients view and de-amplified not only illness but the grand scale of the hospital. It is difficult for a patient to relate to a facility when they become lost in the shuffle and are sent through a maze to find their destination down in the ‘pit’. With all of the advanced technology that is held within the



walls of such a facility, patients arrive in hope of eliminating the disease that runs through their body as if it were a factory to process the human body. Health professionals and doctors have lost sight of the individual while the machine has become the dictator. According to Philip Arcidi there is a need “to reposition issues of medical technology behind the patients’ viewpoint. Creating an environment where their stress gives way to security is primary; technical support is a means to restore health, not the source of a humane environment.” The goal of the architect would be to simplify this complex design in a way that only shows the user a portion of the whole. When there is a need for healing there is a need for a calming and simple environment separate from the support and operational services. A clear and strong circulation path will keep the users from feeling like just another number.

A successful example of this type of design is seen in St Mary’s Hospital, Newport, Isle of Wight, England. The radial design allows for a strong central circulation path with fingers that lead to specific areas of the hospital. These fingers allow for separation from other activities in the hospital while taking advantage of natural light and views to the lake. The user would feel as if they were visiting a small clinic instead of a complex hospital. But this hospital like almost all others is catering to the disease rather than whole healing. There is a link with the outdoors with the use of a rooftop garden outside of the cafeteria and other natural areas to view from the indoors, but the design for a low energy building was priority and in that respect successful



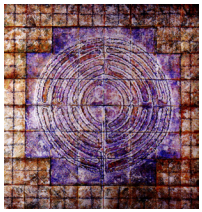


"Based on the exponential changes in clinical services, operational trends, and new technologies, it is not surprising that many facilities, hailed as state-of-the-art 20 or even 10 years ago, are becoming functionally obsolete long before their physical life is spent." (AIA:2004) In an attempt to relate to the individual patient branch clinics were designed. For the most part these clinics are just remote extensions of the hospital with less specialty services. The basics are taken care of for a one day visit where you meet with your primary care giver, usually a Physician Assistant (P.A.) who diagnoses you and then sends you to the pharmacy where you pick up anywhere from one to five different kinds of drugs. If the patient is sick enough, they just might get a referral to see a Physician or a specialist from the main hospital. It is unfortunate that a patient has to wait until they become seriously ill before they will get any attention. This is why more and more people seek alternate forms of therapy outside of our hospitals and clinics. The military has some of the most capable and so called state-of-the-art facilities, hospitals and branch clinics throughout the world yet a large number of military personnel seek outside medical attention in the form of chiropractic, acupuncture, massage, reflexology, chi and others. A survey done with one of the squadrons at the Miramar Marine Corps Base stated that out 40 personnel, 25 went out in town for alternative medical treatments. This is over 50% of our Marines spending out of pocket money when they could be using the in-house medical services if such services were provided and accessible.

As recently as October of 2003 the military began opening the door to alternative therapies when they hired outside chiropractors to work in a few of the branch clinics around the states. Not surprisingly enough the approval of this program was granted in 1990,

a 14 year implementation process that is unacceptable. This is a start but there are only two chiropractors in San Diego to service the entire pacific fleet sailors and Marines between five different naval stations. The chiropractor at the Miramar, Dr. Bart Green, is already over extended and spread thin. He has a personal insight and passion to his profession and for his patients not seen previously in the military medical facilities and unless they increase the number of chiropractors and other preventive therapists, Dr Green will soon be burnt out.

Integrative complementary and preventive therapy clinics are beginning to surface and become known, but what are they most would ask. The philosophy of the California Pacific Medical Center, San Francisco, California is centered on the individual's health and education. They are the largest private, non-profit, academic medical center in Northern California. They provide a wide variety of services including acute, post-acute and outpatient hospital care with a large emphases on the preventive and complementary care and health education. They are closely linked to the other two oldest





hospitals in San Francisco offering the latest technology, programs and services but not much is talked about in the way of therapeutic services providing daily health and rejuvenation, so it is hard to tell where the difference lies. Typical treatment room (above) has a more personal feel and much less sterile then the hospital

treatment rooms.

There has been a big push for integration of complementary and alternative medicine (CAM) in North America from the individual consumer level but unfortunately it has received little attention from conventional medicine. There are many different terms (i.e. integrative medicine, integrated medicine, integrative healthcare, multidisciplinary care) that are being used to describe this integration but with that comes confusion and the potential for misunderstandings between the natural health products on one side and the conventional therapies and prescription medications on the other. Who is tracking what and where are the new goals for this CAM integration?

> Integrative Medicine, then, shifts the orientation of medicine to one of healing rather than disease, engaging the mind, spirit, and community as well as the body. The integrative approach is based on a partnership of patient and practitioner within which conventional and alternative modalities are used to stimulate the body's innate healing potential. (Alternative Therapies: Sept/Oct 2004:50)

A reoccurring theme is seen throughout, "….for the good of the patient…a healthcare system based on patient need…patient-centered care is a foundational tenet in integrative healthcare…a process of creating a 'seamless' system of care for patients." (Alternative Therapies: Sept/Oct 2004:50). With that in mind the patient has their own responsibility in their health, which includes patient participation and self-knowledge to design their treatment plan. Conventional medicine prescribes drugs to cure their patient and the only requirement they put on the patient is to take one pill with meals and don't drink alcohol. Drugs are an easy fix

that takes no effort or responsibility and doesn't even scratch the surface of true health. True health is a way of life not a drug. After a number of cases were analyzed, the authors of Defining Integrative Healthcare came to a consensus on a working definition for Integrative Healthcare.

> Seeks, through a partnership of patient and practitioner, to treat the whole person, to assist the innate healing properties of each person, and to promote health and wellness as well as the prevention of disease (philosophy and/or values)
>
> Is an interdisciplinary, non-hierarchical blending of both convention medicine and complementary and alternative healthcare that provides a seamless continuum of decision-making and patient-centered care and support (structure)
>
> Employs a collaborative team approach guided by consensus building, mutual respect, and a shared vision of healthcare that permits each practitioner and the patient to contribute their particular knowledge and skills within the context of a shared, synergistically charged plan of care (process)
>
> Results in more effective and cost-effective care by synergistically combining therapies and services in a manner that exceeds the collective effect of the individual practices (outcomes). (Alternative Therapies:2004).

An approach that takes this concept even further into the individual patients wellness and lifestyle habits is seen in Asia. The concept of the Japanese bathhouses to cleanse and detoxify the events of the workday is integrated with the relaxation health spas as seen at The Farm at San Benito,



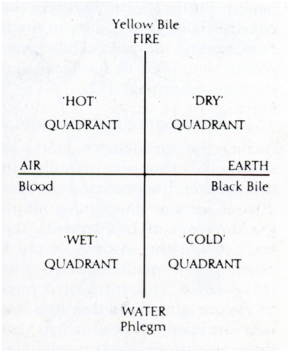
Philippines. Known as the Hippocrates Resort of Asia, this resort architecturally modeled after the Indonesian resorts found especially in Bali, is considered a hospital and resort in one. It caters to those patients that have the will to learn a natural path to healing and a lifestyle that will encourage whole health. The Farm is one of the few places that you could call a true medical spa or alternative medical health resort in the world.

> While-as traditional western medicine is largely focused on symptoms repair, The Farms therapies through detoxification include the whole person, body, mind and soul so to speak-because when one hurts, all suffer. Dis-ease is a most misunderstood subject and yet it should not be. Reinstall harmony, balance and improved lifestyle through rejuvenation and relaxation into a person's life and you are likely to see disease disappear. (www.rxpiney.com/thefarm:2004)



(Right) Typical Treatment room at the Farm, integrated with nature in a private setting (Bottom Right) Aristotle's four bodily humours paralleled the four elemnts of the universe.

Hippocrates, the father of modern medicine prescribed a philosophy that all should follow, one simple and logical, to stay in tune and balanced, that is truly holistic, with natural laws and life will be great. As long as the bodily humors where in balance a life a wellness would be obtained. How could it be so simple, there must be more to it and every scientist and conventional doctor has dissected, manipulated, transformed as technology advanced the basics were lost. The medical profession took something





(Right) Discorides (AD 40-90) was a Greek army physician who codified his knowledge of medicinal plants in De Materia Medica which, unlike later stylezed herbals, was meticulously illustrated from nature.
(Bottom) Treatment room in high scale Destination Spa, Cal=a=Vie.

so simple and created complexity so that the common patient would not understand and therefore would have to seek their help at all times. A Japanese acupuncturist in Okinawa named Nobu, treated me for severe headaches numbness and exhaustion during my forward deployment days on USS Germantown. After two sessions of acupuncture and a completely new diet that eliminated all high acidic foods, sugar including fruits, coffee, and tea all based on her assessment of my wellbeing using resistant strength testing, all my symptoms disappeared. A refreshing and lasting experience centered on whole food and simple lifestyle changes.

The problem with the health spas within the United States is that they are extremely expensive and only the wealthy can afford them. There are 23 health Destination Spas in our country, one of which is just north of San Diego in the Hills of Vista, California called Cal-a-Vie. There are many aspects of this facility that could be incorporated into an integrative healthcare, healing arts center that should be explored. A small scale feeling welcomes the visitor/patient onto the premises with a coordinated three day or seven day visit tailored to fit the health and fitness needs of the patient while including education. The movement throughout the facility

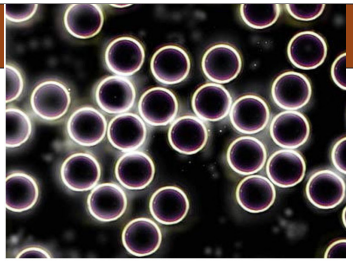


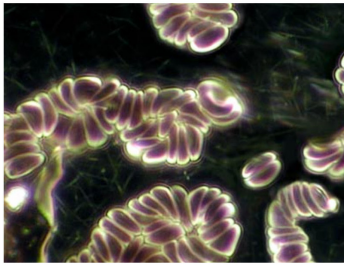
moves the user in and out of doors constantly and the focus is on nature as an element to eliminate stress and exhaustion. The resort is in a perfect setting for this type of natural connection, while only 40 minutes away from the nearest city, one would never know.

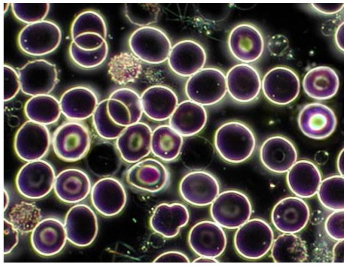
As discussed in the background many medical advances have occurred with the discovery of the four blood types, A, B, O and AB and forty years later the discovery of the rhesus monkey gene. Blood is a mystery to most but without it there would be no life. One drop of blood can tell a whole story about the way a person is feeling, behaving, digesting food as well as reacting to food and the environment. It is important to understand that what you put in your mouth, be it food or chemical there will be a reaction, some positive and others negative. Not every one will react the same because of our genetic blood type fingerprint. It was predicted in the 1930's by Edgar Cayce, the seer of Virginia Beach, that in the future a person's state of health would be determined by the evaluation of one drop of blood. This is now being done as a Live Blood Cell analysis that can reveal digestive and nutritional deficiencies, which can help in creating a specific nutritional program for the individual. A small clinic with someone like Tonia Hugus to run operations is all that is necessary for this type of procedure. One small prick of the finger, a microscopic analysis and the patient will be on their way to good health.

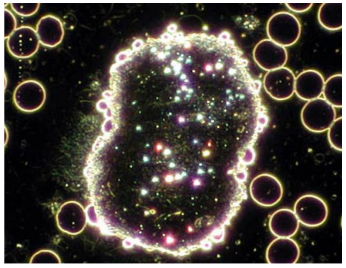
Tonia Hugus, a teacher, humorist, lecturer, culinary artist, author and international consultant is a leading speaker in the Live Blood Cell analysis field throughout the East Coast. She is a dietary consultant in the Eastern Tradition and was a student of Michio Kushi for fourteen years. According to Dan and Nancy Kramer of Ohio, E.A.T. Food for Life, Live Blood Cell analysis is

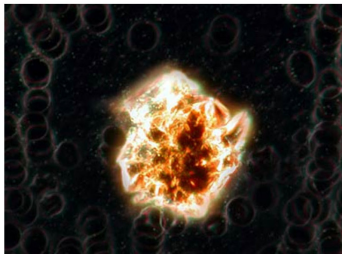
The science of Darkfield











Microscopy equips a certified Darkfield Microscopist to analyze blood at the cellular level to help an individual understand the impact of the four primary causes of health imbalances; chemicals, radiation, diet, and emotions. Special attention is given to understanding the consequences of making less than ideal food choices, which highlights areas of incomplete digestion, improper assimilation, and inadequate nutrients at the cellular level revealing both past and present nutritional deficiencies.

The difference and why it is called live blood analysis is that in the conventional setting all blood tests require killing the blood through observation processes and providing only half of the story. Healthy red blood cells (Left top) are not stuck or clumped together and are able to carry the necessary amount of oxygen and nutrients efficiently throughout the body.

Unhealthy red blood cells (Left second) appear to be stacked or clumped together called Rouleau, where the surface area of the cell is less therefore less oxygen and nutrients are delivered leading to fatigue, acidosis and connective tissue problems. The third microscopic image of a live blood analysis (above third) is called Target cells indicating poor nutrition and assimilation. The fourth image (above fourth) is where Plaques consist of hard waste products of nutrition that are accumulating in the circulatory system. The fifth image (above bottom) is Red crystals containing actinomycin, a sign of lower bowl infection.

As the Architects of today work hard restoring and sustaining our built environment so must the medical profession learn to restore and sustain their health by searching for the clean foods. Clean food means that the food our food eats must be clean as well. The Global Organic Alliance is in place to ensure that our organic farmers have a careful program of maintaining soil fertility, good water quality focusing on organic methods and animal welfare without the use of added chemicals. One key fact continually towers above all the other facts and figures…..over 20,000 cancer cases each year are dire city linked to agricultural chemicals suggesting that our modern chemical farming practices are less than safe. (Kremer. 2004.)

Taking this approach will stop the guesswork on supplementation. On an average those that consume supplements throughout the day take anywhere from ten to fifteen different supplements in hopes of feeling better. But the reality is that they remain trapped in a state of chronic sub-optimal health thinking that they are doing all that they can to improve.

The government forces have made physical fitness mandatory over the years and have become more aware of the need for a good nutritional diet. But, the training and guidelines is based on the food guide pyramid, developed by the U.S. Department of Agriculture, without consideration of the individual makeup of each sailor, soldier or marine. The emphasis is on portion size and generic categories for foods while the quality and the healing attributes of food are overlooked. It is not uncommon to drive onto a military base and find fast food restaurants such as McDonalds, Burger King, KFC, Taco Bell and more. Some of these fast food places are also found on our ships and within our Medical Facilities. The support our government gives to our ‘fast food nation’ is setting a poor example while our optimum health performance and wellness are put at stake.

Importance Of The Study

The unexpected increase in number of illness and disease infected individuals, due to improper diets, fast food global infiltration, genetically modified foods, additives and preservatives by chemical engineering and a lack of or misguided information to the public, indicates that there is a need for a facility that can encourage a simple lifestyle and provided education on healing attributes of food and nature. There is also the question of how food relates to blood type and if it makes a difference on one's health. It has been scientifically proven that the blood type diet works and is not just another faddish diet waiting to die out. The infrastructure of ancient healing theories and methodologies forgotten are waiting to be tapped, accepted and tailored to each individual. The cost to remember nature as a healing art will affect the biochemical industries, pharmaceutical sales, traditional healthcare, department of agriculture, marketing for the food industry and the fast food industry. It will be difficult to change an industry that makes an abundance of money off of sick people.

The answers to date on this problem have been done in pieces. Facilities that claim to be Complementary and Alternative Medicine combined use this title to gain funding for research and the facility is more of lab designed for the staff and not the patient. After years of requests and scientific based research the government opened a small door allowing the chiropractic profession to enter, but again this is only a part of the whole solution.

Spurlock's study on McDonalds and our fast food obese nation went into the high school cafeterias to discover the USDA approved processed food in a box that they feed our students. Nothing is made from scratch anymore

or cooked for that matter. Looking further Spurlock found the Appleton Central Alternative School (ACAS) that has a holistic approach on nutrition that improves the behaviors of the students as well as their test scores. The students at this school meet one of the following criteria to attend; they are either credit deficient, disruptive or truant, basically the dropouts and misbehaved students from all the surrounding schools. They have found that non-chemically processed foods, low in fat, salt, sugar, and fresh fruits and vegetables are the basis for improvement, especially in children diagnosed with ADA and ADHA. "The connection between nutrition, chronic disease, and learning is well established among scientists, and they are clearly aware that inadequate food intake limits children's ability to learn about their world." (Appleton Central Alternative High School. March 2004.)

The quality of life for our children as well as the entire adult population is at risk as a result of the poor nutritional quality of our food due to the endless list of FDA approved unbeneficial additives. A Healing Arts Center can provide a beautiful natural environment within the context of the urban setting that promotes wellness through a complete nutritional program that can cure and improve your mind and body. The hidden attributes of whole clean food will be rediscovered.

Interview with Gary McGiboney,

Vice President of Operations

Cal-a-Vie, The Spa Havens

Vista, California



Cal-a-Vie is a gateway to individual health and healing. It is the ideal for truly integrating the ancient healing arts centered on nature and Chinese medicine with the individual. After meeting Gary McGiboney, Vice President of Operations and talking with him on the philosophies of Cal-a-Vie I became aware that there is such a place that connects with the individual, but at a great price. The facility and landscape is intertwined for a purpose, and that is whole healing. He explained the differenced between a resort spa that is considered more of a Day spa and this fairly new type of facility called a Destination Spa. There are only twenty-three destination spas in America that fall into the 'whole program' category. All of which are catered more towards the large corporate industry CEO's, the wealthy, and particularly in California, the Biotechnological Industry. They are the ones that can afford this luxury. The first phase of construction was completed in 1985 and the second phase to add a 17,000 square foot state-of-the-art fitness center is under construction and expected to be completed by February 2005.

The main difference that Gary mentioned is that their facility is all about providing the best therapy, education and guidance to the individual. The most important part of the process is the beginning. This is where he gets to know the individual through a wellness consultation with the program manager to find out what the individuals reason for joining Cal-a-Vie is. The clients could be coming for a number of different reasons, either for pure vacation and relaxation purposes, week of detoxification and cleansing, a way to kick off a new fitness program, to lose weight and learn better eating habits or just for a chance to

reconnect to nature outside of the work place. Whatever the reason the staff at Cal-a-Vie is there to tailor the three day or week around that individual.

The facility is equipped to take groups of 24 at a time. They have 24 individual villas that situated from the creek side up the mountain with a Mediterranean style village/community feeling. There are beautiful gardens both private and public intertwined throughout the village as well as the untouched natural environment for hiking and nature walks. The whole week is planned out from the moment you wake until the moment you return to your villa to sleep. The meals are planned and prepared with considerations to food allergies and calorie intake. The mornings are always physical fitness activities while the evening are dedicated to education, treatments and relaxation.

"Although each guest's schedule is tailored to fit their specific goals and desires, below is a "sample day" of fitness, stress relief and nutrition at Cal-a-Vie." (Cal-a-Vie Brochure. Oct 2004)

6:15 Wake up/Morning Hike or 2 Mile Walk on the Golf Course
8:00 Breakfast
8:40 Warm-up Class
9:00 Sports Conditioning
10:00 Stability Balls
10:50 Revitalizer
11:00 Spinning
12:00 Hair and Scalp Treatment
1:00 Lunch
2:00 Seaweed Wrap
3:00 Seaweed Wrap
3:50 Revitalizer
4:00 Yoga
5:00 Massage
6:30 Hors d'Oeuvers
7:00 Dinner
8:00 Stress Management Lecture

The program is set up in either a three-day visit or a seven-day visit depending on the individual. The Spa cuisine and nutrition enhances health and longevity an integral role that adds to the benefits of spa therapy. A



gourmet cuisine made with garden fresh herbs and vegetables provide a healthy low-fat, low-sodium diet, high in natural complex carbohydrates in the form of whole grains, legumes, vegetables and fruits along with modest amounts of lean animal proteins. Not only do they provide this great food for the body they also provide a week long cooking class to teach their users how to prepare simple yet flavorful food right at home.

This type of therapy and environment is great solution to learn about what keeps your life balanced but the problem with this type of spa is that it is not affordable and unattainable to the average public. The typical three day cost is over $2,000 and a weekly rate runs over $5,000.

The ultimate haven of health, Cal-a-Vie is much more than pampering.



Cal-a-Vie is a vigorous retreat that helps you find the path to a higher and healthier relationship with your mind and body. A combination of physical activities tailored to your fitness goals and relaxing spa treatments enrich and invigorate you, Cal-a-Vie is the ultimate spa. We welcome you! (Cal-a-Vie Brochure. Oct 2004).

Interview with Kimberly North

Holistic Health Practitioner, HHP

Massage Therapist

Zen Pacifica

12 November 2004

"HEALING THE WORLD ONE PERSON AT A TIME"

Zen Pacifica located in Escondido, California, one of the more holistic towns in the greater San Diego area. Kim has been gifted with the ability to heal and help others since the age of six. She was on her own at an early age and mixed up in the wrong group where she was around the drug scene. She was also married and with child at a young age. But a failed marriage was the best thing that could have happened to her and her lifetime desire to help people began. She worked at a Nursing home and then at an animal shelter taking care of sick animals. She learned a wealth of knowledge about the human brain (mind and body) working at the San Diego Brain Injury Foundation where she worked with people who can't help themselves due to brain damage. From there she began working at the Body Nurture Wellness Center providing massage therapy, colon hydrotherapy, Bach Flower Essence Therapy and hypnotherapy. If it wasn't for poor management she might still be there but it was time for her to start her own business, Zen Pacifica.

It is a small business with herself and one other massage therapist. There are two treatment rooms and one office/consultation space approximately 600 square feet. There are large front windows facing the street and the north in the office space while the treatment rooms have no windows for greater control of light and relaxing massage environment.

Her philosophy of healing the world one person at a time is what she does. She feels that in our world people take all the time with very little giving. She gives

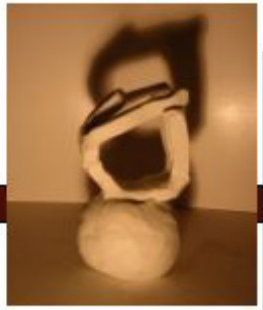
because she believes people function better in life at work when they are not in pain, emotional or physical. When asked if she had any physical pains or health challenges she explained that at age 22 she was diagnosed with Hepatitis A and B. Hepatitis A is a virus that attacks the Liver usually obtained through food poisoning and not so difficult to cure, but Hepatitis B is the carrier and sticks with you. She use to own a house cleaning business and believes she contracted it one horrible cleaning experience when she slashed open her hand tearing out an old kitchen floor. Instead of seeking a physician in the medical field she used her knowledge base and cured herself by herbs, fasting, juicing and rest.

She now has two children both of which and including her self stick to a Gluten Free and Chemical Free diet. They are all sensitive to processed foods especially her son. Her blood type is O positive but she is not sure what her children are. When asked about her thoughts on the Blood type diet she stated that "I'm starting to see more personality links to blood types that I find very interesting and I believe that staying on a gluten free diet is beneficial for me and my children."

She hopes to start her ideal wellness center, which would be a multi functioning facility close to the city that brings all the therapist together on one location. There are so many great alternative therapies out there but everyone has there own personal view that their therapy is the way to health but what they don't realize is that it is combination of all. Having everyone together would allow group discussions on patient health so the best solution and therapy will be given. Ideally there would be Chiropractic, acupuncture, massage, nutrition, colon hydrotherapy, naturopathic brain mapping for biofeedback and chakra energy balancing. It would also include the use of sulpher baths and color therapy. It would basically be "A City within a City".

graphic analysis

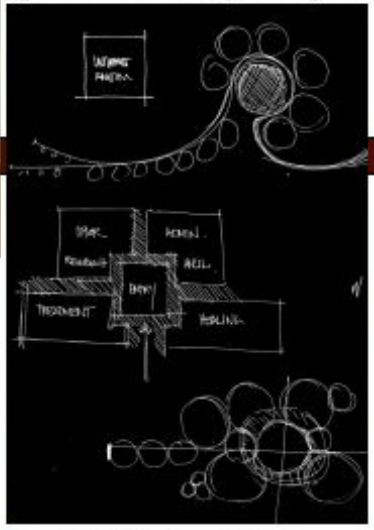
concept modeling

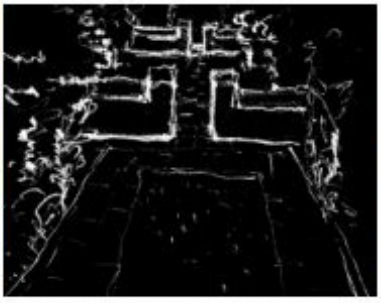


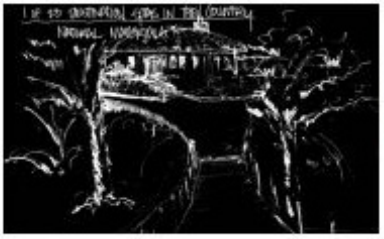




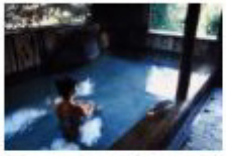
conceptual diagrams of movement. garden division to draw you through







concept imagery











Scope of Study

This study covers the application of the concept that alternative medicine can be successful integrative with traditional conventional medicine to better the health and wellness of America. The background of this study examines the journey of discoveries made with blood transfusions, blood typing and nutrition needs to prevent diseases and how this has influenced the healthcare facilities to an eventual isolation from nature and natural remedies. The characteristics of a proposed Body Solutions Center for the healing arts are to provide individual optimum wellness as a concept that can be evaluated through medical science and medicine, and nutrition and health theoretical frameworks.

The study assumes that a site can be found in the urban setting near or within the Naval Medical Centers around the world. This urban setting will allow the Naval Facilities Regional Planning Department to coordinate with the local City Planners in providing a joint facility. The study also assumes that the United States Navy will be open to increasing the integration of alternative medicine with the conventional medicine applications and theories. This will also provide the opportunity to maximize healing qualities of land by enhancing the waterfront property owned by the U.S. Navy not only for their personnel but also for the community. Specific details surrounding the lease of land or a Navy initiated public-private venture are not examined for a particular site, either theoretical or actual.

Definitions

AANP	American Association of Naturopathic Physicians
Acupuncture	Needles are inserted in the acupuncture points along the meridians running through the body to balance the flow of Qi.
ACAS	Appelton Central Alternative High School, WI
Acidosis	A condition of pathologically high acidity of the blood.
Allopathic	Therapy with remedies that produce effects differing from those of the disease treated.
Alternative medicine	Originally used by those practitioners who wished to establish that they were an alternative to orthodox medicine.
AMA	American Medical Association
Aromatherapy	The use of aromatic essential oils to treat many common illnesses and disorders.
Ayurvedic medicines	An ancient Indian system of holistic medicine, combining preventive and medicinal remedies with diet, meditation, breathing exercises and yoga.
Bach Flower Essence	The 38 Bach remedies aim to correct health-threatening emotional imbalances, using infusions of different plants.
CAM	Complementary and Alternative Medicine, integrative healthcare, not integrated medicine.
Chakras	From Sanskrit, means “spinning wheels” or “wheels of light”. Spiritual energy centers in the body and around it acting like little invisible computer centers storing various information and energy forces relating specifically to the individual and different areas of his or her life.

Celiac Disease	Also coeliac, a chronic nutritional disturbance of infants and young children, caused by improper absorption of fats and resulting in malnutrition, distended abdomen and diarrhea.
Complementary medicine	First used in 1976 in the United Kingdom as a means of linking the most appropriate techniques to serve the patient at physical, mental, emotional and vitality or spiritual dimensions. Often interchangeable with Alternative.
Destination Spa	An environment that is dedicated to educating people about the benefits of physical activity, nutritious meals, mind-body connection and harmony, and therapeutic advantages of massage and body treatments.
FDA	Food and Drug Administration
Gluten	A mixture of plant proteins occurring in cereal grains, chiefly corn and wheat, and used as an adhesive and as a flour substitute. A lectin found in wheat and other grains binds to the lining of the small intestine, causing inflammation and painful irritation in some blood types, especially Type O.
GMA	Grocery Manufactures Association
HPP	Holistic Health Practitioner
Homeopathy	A system of medical treatment based on the use of minute quantities of remedies that in massive doses produce effects similar to those of the disease being treated.
Holism	Used in the 1970's to indicate care of the whole person: body, mind and spirit.

Lectins	Any of a group of phosphatides found in all plant and animal tissues, produced commercially from egg yolks, soybeans, and corn, and used in the processing of foods, pharmaceuticals, cosmetics, paints and inks, and rubber and plastics.
Live Blood Analysis	A simple yet cutting edge test utilizing a microscope, TV monitor and a small droplet of blood obtained by finger prick. The image is projected on a TV monitor allowing analysis of sample to reveal digestion and nutritional deficiencies.
Naturopathy	A system of therapy that relies exclusively on natural remedies, such as sunlight supplemented with diet and massage to treat the sick.
Naturopathic doctor (N.D.)	A physician trained in natural healing methods. Naturopathic doctors receive a four-year post-graduate training at an accredited college or university, and function as primary-care providers.
Naturopathic medicine	The holistic wisdom of the past, scientific knowledge of the present and the wave of the future.
Reflexology	The ancient therapy uses a method of foot massage, applying pressure to reflex zoned mapped out on the feet. Reflexologist believe that the soles of the feet mirror the rest of the body and by working on specific areas that correspond to other pars and organs of the body, a wide range of problems can be treated.
USDA	United States Department of Agriculture

Summary

There are many governing factors to the way an America lives and eats but there is an element of personal responsibility to seek the truth if the right information is provided and make the right choices. Finding a physician or healthcare facility that believes in the natural healing attributes of food can be difficult and near impossible depending on your geographical location. Those facilities that offer that one on one individual healing are usually found overseas or in the overpriced health spas of America.

The public puts a lot of faith into the governing organizations such as the USDA, FDA, AMA and the GMA. But what they are not realizing is that all of those large corporations are concerned with the economic aspect and not the well being of the individual. Our national budget is over extended and what better way to make money then to keep the people sick by the overuse of chemicals in our food supply and environment so that drug sales continue to grow. It might take more than just another integrated facility to have an impact on this but we have to start somewhere and as Kim North stated she is one therapist “healing the world one person at a time.”

Chapter Three

Research Methodology

- Introduction
- Rational & Goals
- Typological Analysis
- Programming
- Site Analysis
- Massing
- Summary

Introduction

This chapter forms the foundation on which the healing spa and resort will be designed. The first part includes the typological studies. These studies examine a wide range of projects differing in not only geographical location but form and function. Each play a significant role in bringing together the healing concepts in creating a truly integrative therapeutic facility. It is necessary to study not only the conventional hospitals of the past and today, but also the health spas and resorts, destination spas and health in the home environment. The next topic of this chapter is the site analysis. An extremely important aspect of any project is to fully understand the existing site, surrounding buildings, constraints and opportunities awaiting to be explored. Another critical part to the process is identifying the program. The program will define the scope of work, the function of the program leading to square footage and structural considerations. The program identifies the needs of the project and encompassed those needs into a master plan for the entire site. The final section of this chapter will merge the site analysis and program into the projects massing study. The massing study begins with a three-dimensional meta-diagram. The meta-diagram expresses connections, relationships, overlaps and layering systematically interlinked with the programmatic issues, site conditions and spacial phenomena. The diagram shows in a abstract and conceptual manner the relationships with the streets, surrounding buildings, natural landscape, vehicular traffic, pedestrian

traffic, connections to rail-lines, parks and downtown shopping districts. Once this is understood the next step of massing is scaled down to a more intimate and internal study of how the healing center will transform the existing building that it will be occupying as well as how the other parts of the program will integrate into the context of this abandoned site. The goal is to understand how the elements of the program will relate to each other.

This chapter shows the necessary steps in providing a strong foundation to the design element of any project. Fulfilling the needs of the client and end user successful calls for a clear and precise understanding of what is taking place on the site, what comparable projects are out there and what are the lessons learned that will impact the future of the project.

Rational & Goals

The majority of our healthcare funds are directed to the large complex conventional hospitals with little to no thought on how to prevent disease and illness from setting in. Hospitals are necessary but lacking in most cases in determining the root causes to those with problems. On the flip side of that are the numerous day spa resorts for the vacationer searching for a quiet relaxing place to calm the stress as well as the overpriced Destination 'purging' spas. This project and chapter will explore the positive and negative attributes of a few diverse project types that are considered healing environments.

From the information gathered the goals in proposing an integrative healing spa and resort is to accept a revived way of healing those in need while providing a facility focused on preventative measures through alternative therapies for those in good health.

A health facility that integrates both complementary and alternative medicines in a welcoming resort style.

A facility grounded by nature, focused on natural healing based on the individuals makeup and needs

A facility that promotes a lifestyle of balance based on the healing powers of whole organic foods and gardens.

Integrated with a health food market and cafe that is centered on providing food for all blood types and intolerances.

A facility that will uphold Hippocrates and views and theories to live in balance within ourselves as well as within the earth. 'Whole Living'

Continuous interaction with the outside while the user progresses through the healing process or path to daily wellbeing.

Maximize natural light and

views as the structure extends from the indoors to the outdoors.

Use of renewable and recycled materials that express the heritage of the land and provide a warm and welcoming energy efficient environment. Where possible materials will be re-used from the masonry building to be demolished.

A transparency between the built and the natural will connect the user to the outdoors on every level with minimal disturbance to the surrounding environment.

The use of rooftop gardens, healing gardens and treatment rooms no longer isolated from nature will provide an architectural crossing from the stark medical facilities to the comforts of a healing resort and spa.



Research Methodology
- Introduction
- Rational & Goals

Typological Analysis
- Programming
- Site Analysis
- Massing
- Summary

Introduction:

The typological analysis is the first step in defining a design problem. The investigation begins by locating facilities with similar functions and goals. But as in the case with this thesis there is not an exact match therefore the analysis requires a wide spectrum of facilities diverse in geography, square footage and primary focus. The process of understanding healthcare facilities, be it conventional or complementary, medical spas, clinics becomes an ongoing process as the project evolves from an idea to conceptual, schematic and final design. This thesis introduces a revived way of achieving optimum health by incorporating elements of both western and eastern practices while returning to the simplicity of the basics.

In this analysis a journey begins with the Kaiser Permanente Medical Center that is under construction in Santa Clara California. Kaiser facilities have been known for the mass cattle type of treatments within a cold sterile and uninviting environment. They are also know for being an extremely large and complex facility that becomes its own self contained city practicing the traditional ways of western medicine, if drugs don't cure it then surgery must. The next stop in the journey is in England at St. Mary's Hospital. This facility was chosen for its unique design and achievements as an energy efficient design. This too is a rather large hospital but one that takes advantage of the open air and natural light circulating its' finger like wings. On a much smaller and intimate scale the journey continues to one of the countries 'true' Destination Spas, Cal-a-Vie in Vista California. The services provided at a Destination Spa vary depending on the needs of the visitor as well as the length of stay. They provide detoxification, weight-loss, fitness and nutritional programs to name just a few. The personalized

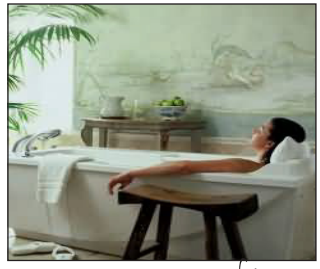
Kaiser Permanente



St Mary's Hospital



Cal-A-Vie



program goals are to teach a people to live a balanced and stress free lifestyle. The unfortunate reality of Cal-a-Vie is that only the rich and famous can afford to experience a week or two out of the year and is that enough time to turn ones lifestyle around and have it truly become a part of their daily routine?

The journey takes a turn to Asia, The Farm at San Benito in the Philippines to be precise. This Medical Spa is considered the Hippocrates Health Resort of Asian. The Farm has successful integrated the alternative therapies within a world of natural health and medicine, a true inspiration. The facility is set within the lush foothills of Mount Malarayat as a village that creates a therapeutic walking experience between the medical, treatment rooms, baths and individual villas.

Continuing on the downsize, the journey stops in the most important place of all for ones optimum health, their own home. The home is the most important element in the wellbeing of an individual and by understanding how to design a healthy home personal health will prevail. The Wimberley Home of Healing in Texas and James Cutler home in Washington State are just two examples of homes that embrace the land the, boas well as the value of the human interaction within the space.

The following facilities have been chosen for this analysis:

Kaiser Permanente Santa Clara Med

St. Mary's Hospital, England

The Farm at San Benito, Philippines

Cal-a-Vie Destination Spa, California

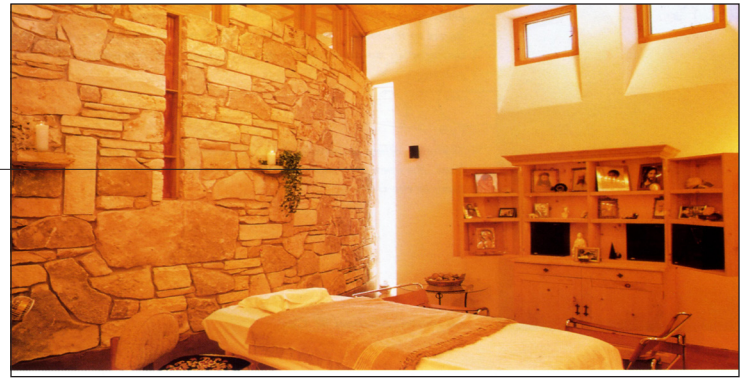
The Wimberley Home of Healing, Texas

The Paulk Residence, Washington

The Farm



Wimberley Home

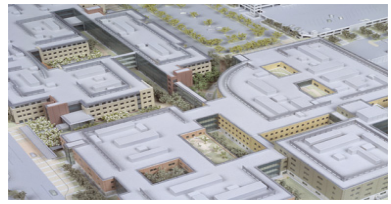


Paulk Residence



Case Studies





New Medical Center Campus

project name: Kaiser Permanente Medical Center

location: Santa Clara, California

year built: 2001-2007, phased

architect: Anshen+Alan Architects

size: 1.2 million square feet, 37-acre site

basic organization: Medical center complex is divided into four major design elements, the four-story 52,000 sq. ft Medical Office Building(MOB), a multi-wing 327-bed hospital, the gardens and landscape, and two parking structures for 3,200 automobiles.

client type: patients/members

architectural style: post modern

special features:

Steelwork includes the installation of Japanese-made unbonded braces (UBF) for seismic conditions

physical context & site conditions:

The medical center is designed on the former orchard site between to major fault lines, the San Andreas to the west and Hayward Fault to the east.

sources:

www.anshen.com. October 2004.

wwwkaisersantaclara.org. October 2004.

http://residency.kp.org/ncal/sc/home.html. Kaiser Permanente, 2004.

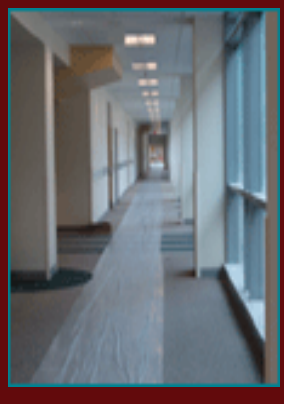
www.arup.com/advancedtechnology/project. Oct 2004.

Office of James Burnett, Landscape Architecture

awards: AIA and Modern Healthcare Design Award. California Healthcare Special Report Award 2003.







Anshen+Alan

Gridlike circulation linked by the green spaces provides continuous interaction with nature

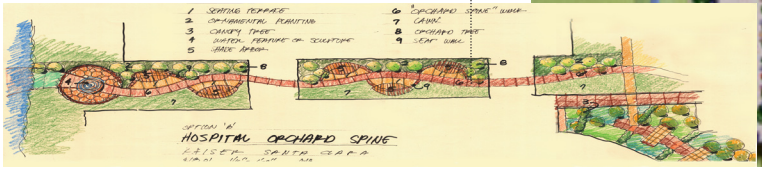
single loaded corridors maximizes the use of natural light and provides each patient with a view of the courtyards or the water.

A late afternoon shot into one of the couryards allows sunlight to continue to penetrate the building.

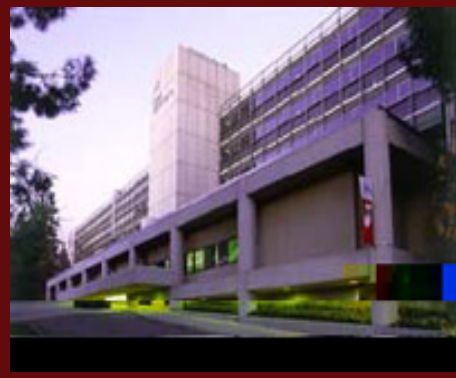


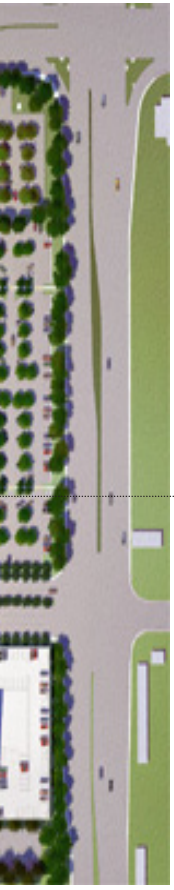
Photos and Graphics from Anshen+Alan and Office of James Burnett, OJB.

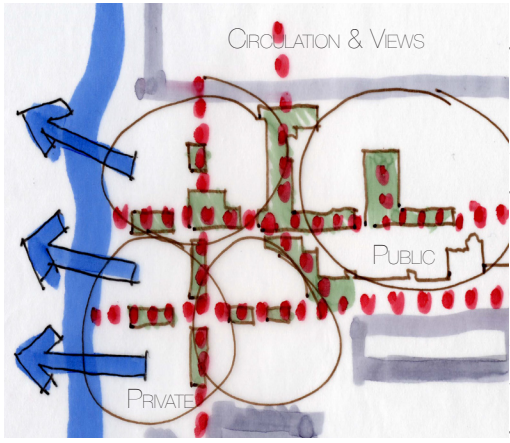
Orchard Spine concept
Office of James Burnett,
Landscape Architect







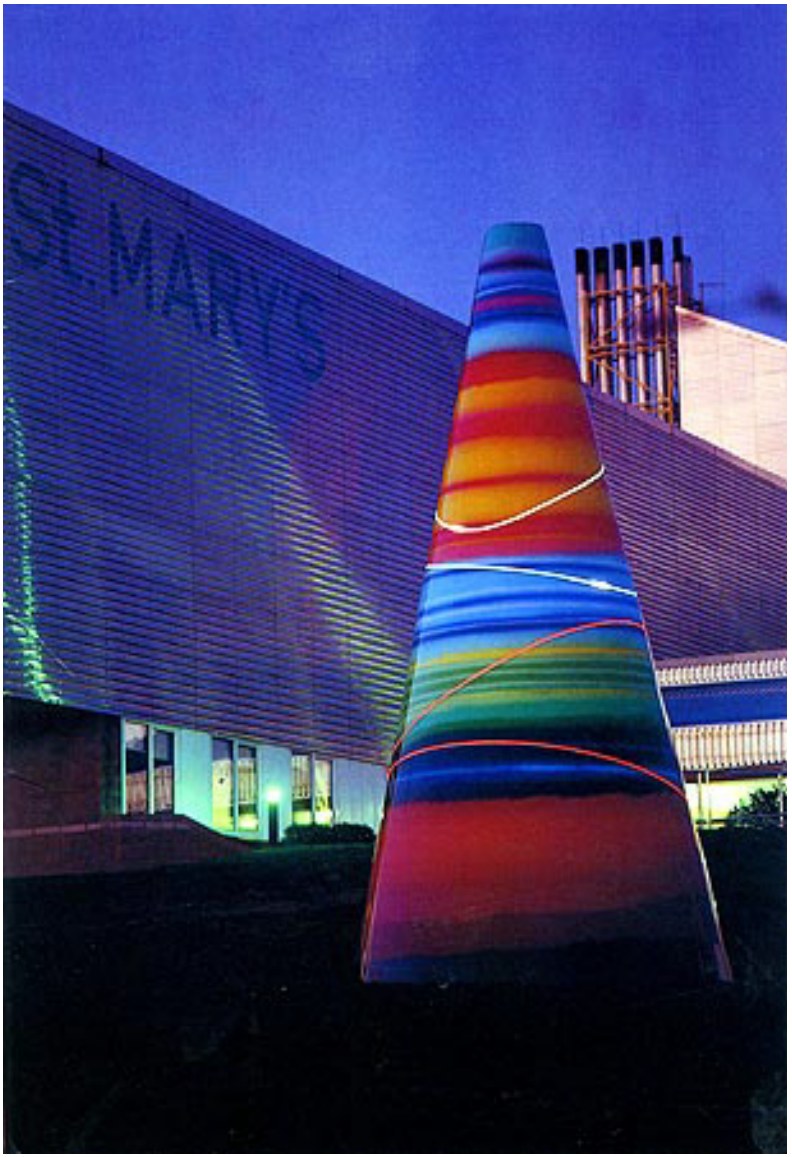




The Hospital is set back from the street and up against the creek, providing the patients with the mos private setting with opportunities of views and natural light on all four levels. The site progresses from public to semi-private office buildings to the private wards, while the parking is kept on the outside periphery.

The architect broke out of the traditional hospital in a box and began to create more of a village type setting. Breaking up the different functions of the hospital allows for nature walks and maximum sunlight exposure to offices and wards. A series of pocket parks are found within and along the orchard spine that leads to the riverfront walk. A connection between the built and the natural are expressed through the materiality and capturing of natural light.

The campus style layout incoporates the outdoors as garden and orchard walks. Courtyards are linked to establish the circulation between and through the separate buildings.



St. Mary's Hospital

Energy Efficiency Design

project name: St. Mary's Hospital

location: Newport, Isle of Wight, England

year built: 1991

architect: Ahrends Burton & Koralek, London

size: 250 bed hospital

basic organization: Expansion of existing Medical center adds a 250-bed hospital in wings with six-bed wards (common in England but rare in the US). The new facility includes kitchen, dining, intensive care, surgery, acute patient care ward and power plant.

client type: patients

architectural style: Modern, steel cladding.

special features:

Nucleus design, Low Energy saves up to 50% on energy costs. The power plant has a sophisticated heat recovery system that could be readily adapted to dense urban sites.

physical context & site conditions:

Comprised of an arc of cruciform buildings that take advantage of the best views and southern light. "Composite massing and thoughtful landscaping lakeside contribute to a total healing environment.

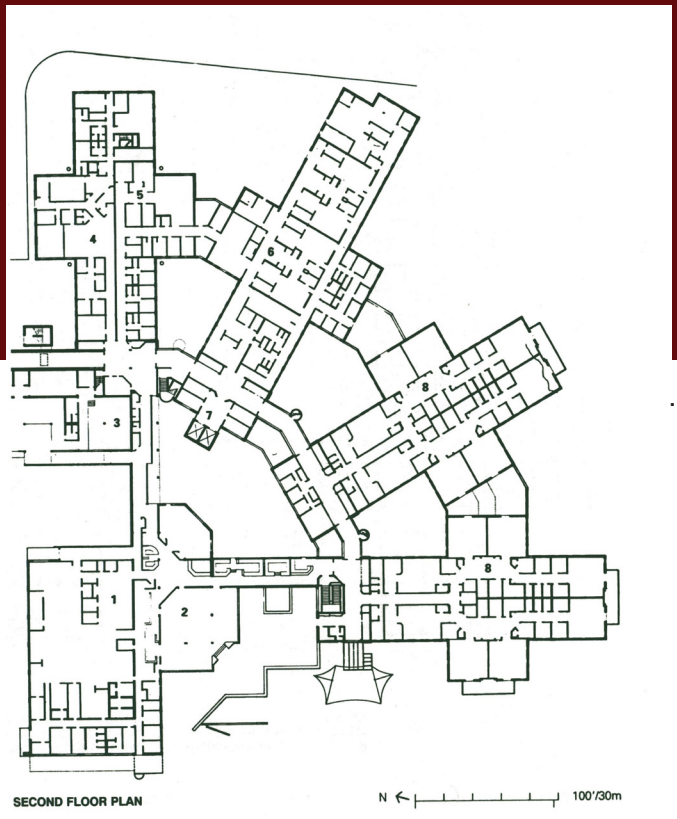
sources:

www.abk.co.uk. October 2004.

Arcidi, Philip. P/A Inquiry: Hospitals Made Simple. Progressive Architecture. 03.92:86-95.

awards: "Best Building of the Year", Sunday Times, 1992. PA Innovation in building design and construction award, 1991.

main entrance photo from www.abk.co.uk

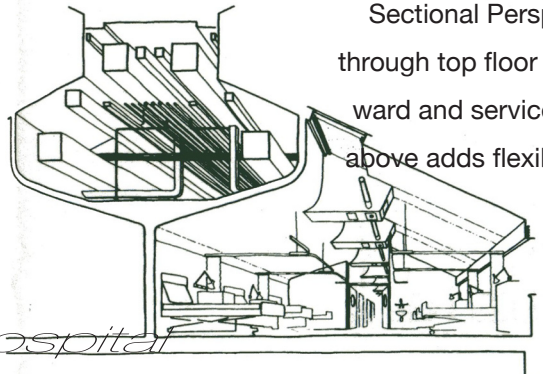




Concept Sketch By Architect

. The use of a radial geometric cruciform plan allows the plan to maximize the radius of views, collection of the suns energy for natural light and energy consumtion and the recovery of warmth in the semi protected courtyards. Sectional Perspective through top floor patient ward and service spine above adds flexibility to design

Floor Plan above and Section Perspective through top floor patient ward. Progressive Architecture 3.92



St Mary's Hospital

Ahrends Burton & Koralek

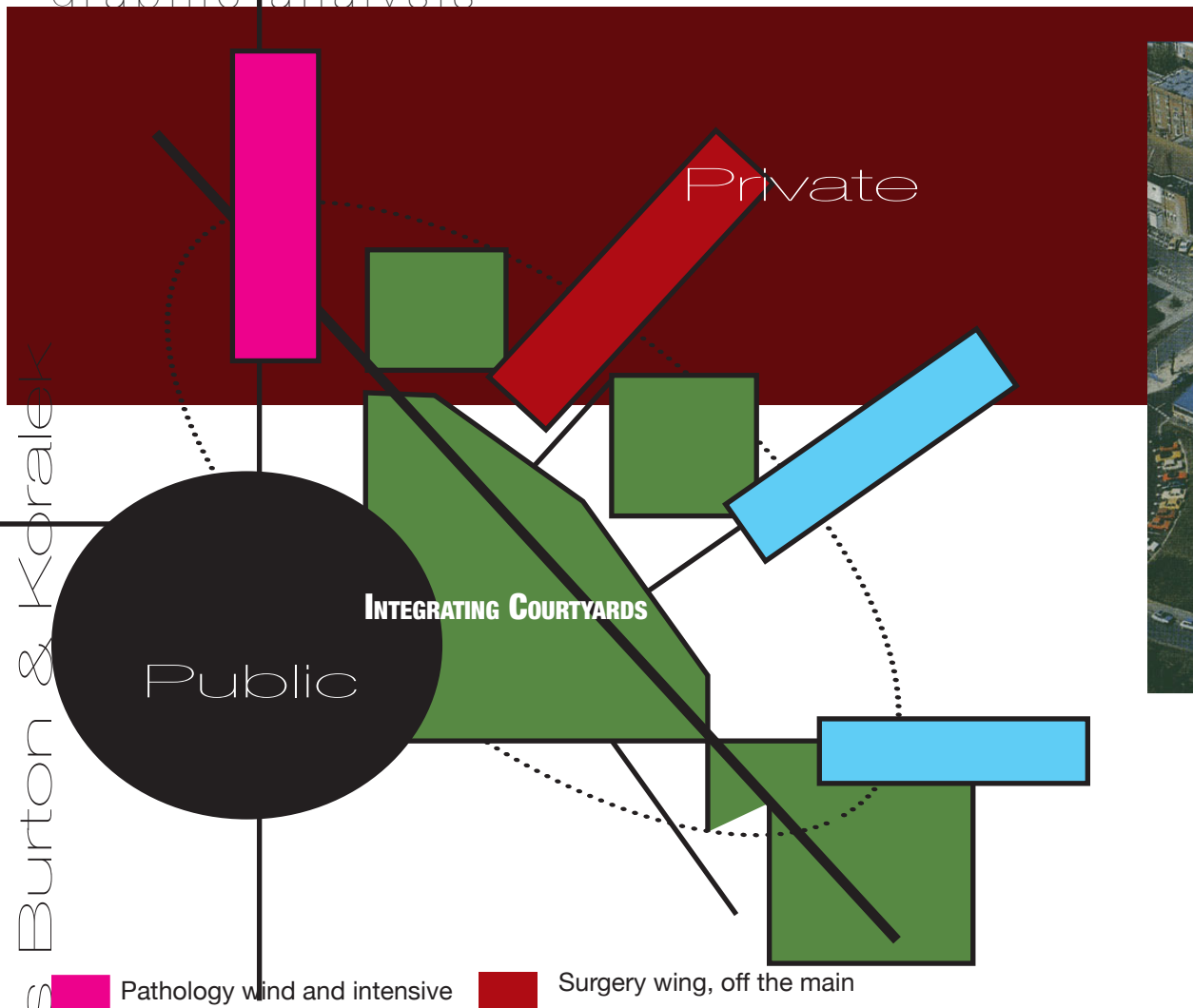
St. Mary's Hospital



Exterior View from Lake shows use of materials and Steel Cladding for solar gain. Photo from www.abk.co.uk

Interior view of open bay patient wards, photos from www.abk.co.uk. The space uses natural daylighting techniques that eliminates the need for electricity during the daylight hours.





Pathology wind and intensive care set furthest away from hight of activity and secluded from main traffic flows. Little opportunites for views but good south solar collection.

Surgery wing, off the main circulation. The plan is opposite of the wards due to the nature of surgery, enclosed and sterile with tight environmental controls. Rooms in the center and cooridors on the perifery.



Site Overview
Progressiv Architecture 3.92



Patient ward wings are private with views to the lake and gardens. Circulation is down the middle of the wings which places the patient near the windows for opportunities of light and natural open air threatments.

A large renovation designed to cut the energy cost of a 200-bed hospital in half. A curved cooridor connects the new entrance to the sp ine of the existing hospital while the expansion fans out towards the east.
Steel Cladding was used to collect and reflect the suns rays to warm the courtyards.

Case Studies



Destination Spa

project name: Cal-a-Vie

location: Vista, California

year built: 1985 1st Phase

architect: Steve Lane Architects

size: 200 Acres

basic organization:24 unique guest 'European country villa' cottages, 17,000 sq ft new fitness center (second phase to be completed Feb, 2005),treatment rooms, bath house, education and nutrition center and a kitchen designed for specialized cooking classes.

client type: CEO's, Corporate Groups, wealthy

architectural style: Mediterranean style, rustic elegance

special features:

Architectural and interior design created to harmonize with the environment and achieve an atmosphere of peace and tranquility. A complete program.

physical context & site conditions:

Subtly Placed amongst the rolling hills of a secluded valley just 40 miles north of San Diego. The style and use of materials melts into the landscape complimenting the natural colorful beauty around. Views are captured at every opportunity, either the natural landscape or courtyard gardens. Isolation is found in the labyrinth walk and near by hiking.

sources:

www.cal-a-vie.com. October 2004.

Cal-a-Vie brochure, 2004.

McGiboney, Gary. Interview, 27 October 2004.

Horchow, Sally. Cal-a-Vie's New Glow. Town and Country Travel. Fall 2003.

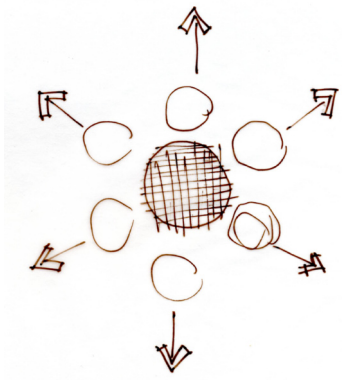
Marogolis, Jane. Hale and Hearty. House Beautiful, 2/2004.

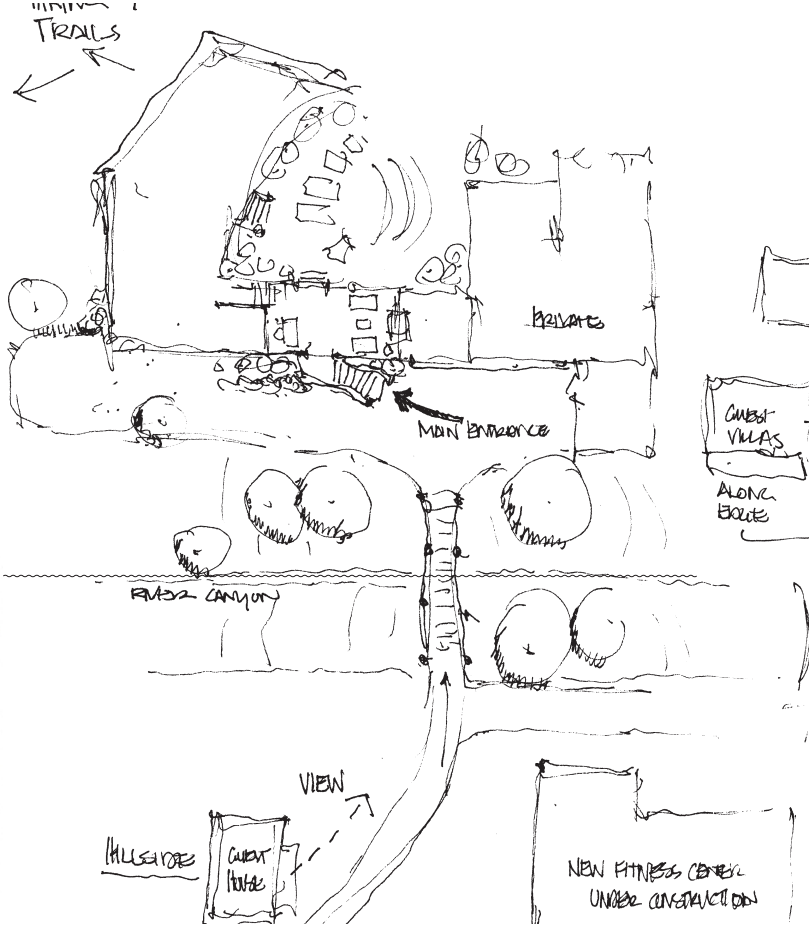
Blackerby, Jefferies. California Dreaming. Departures Magazine #86. Sept 2003.





The wooded Footbridge crosses over the creek leading to the entry. A natural beginning to the cleansing process that is about to take place as one leaves the daily burdens behind and looks to the journey ahead.



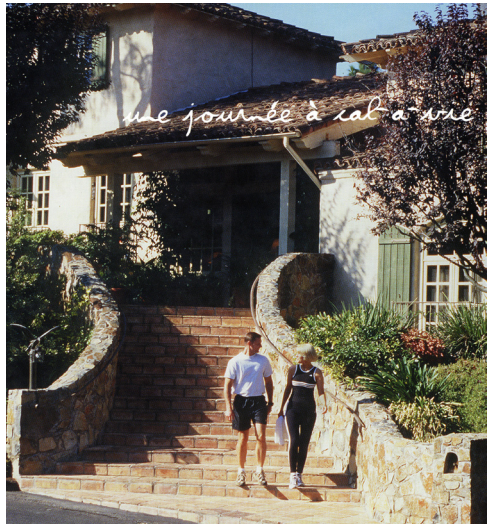






The private villas are clustered in the hillside and along the valleys edge, using the natural terrain to create individual privacy and views. The grounds are quaint and welcoming while the entry is like coming to the comforts of home. Treatment rooms use natural materials and light to create a soothing atmoshpere.

Photos from www.cal-a-viie.com





Case Studies



Asian Resort Medical Spa

project name: The Farm at San Benito

location: Lipa, Batangas Philippines
year built: 2002
architect: Elkard Rempe
size:4800 acres

basic organization: In the foothills of Mount Malarayat a village setting is found within the beauty of the landscape. Individual guest villas are positioned so each has their own view with complete privacy. Reception, treatment rooms, meditation pavilions, spa facilities and vegetarian restaurant make up the site.
client type: patients and health vacationers
architectural style: Balinese-resort style

special features:
The Farm is considered the Hippocrates Health Resort of Asia and one of the few truly medical spas or alternative medical health resorts in the world.

physical context & site conditions:
Former coconut and coffee plantation rich with natural amenities, gardens, ponds, mountains, rivers, lagoons and waterfalls.

sources:
www.mnilatimes.net. October 2004.
Ordinario, Cai U. All natural The Farm at San Benito. Sept, 2003.
www.rxpinoy.com/thefarm/
www.thefarm.com.ph





Spa

Public

THE BALINESE STYLE ARCHITECTURE IS APPARENT THROUGH THE NATURAL MATERIALS USED THROUGHOUT THE FACILITY. WARM WOODS, EXPOSED STRUCTURE, SONTE WORK AND GLASS ENFACIZES THE CONNECTION WITH NATURE AND NATRUAL HEALING REMEDIES. THE INDIVIDUAL VILLAS ARE POSITIONED SUCH THAT EACH ONE HAS A PRIVATE DECK AND VIEW. THE USE OF BOTH OUTDOOR AND INDOOR TREATMENT AREAS OR ROOMS IS A LARGE PART OF THE HEALING PROCESS

THE FARM AT SAN BENITO







Treat-
ment
Rms





Case Studies



Healing Homes

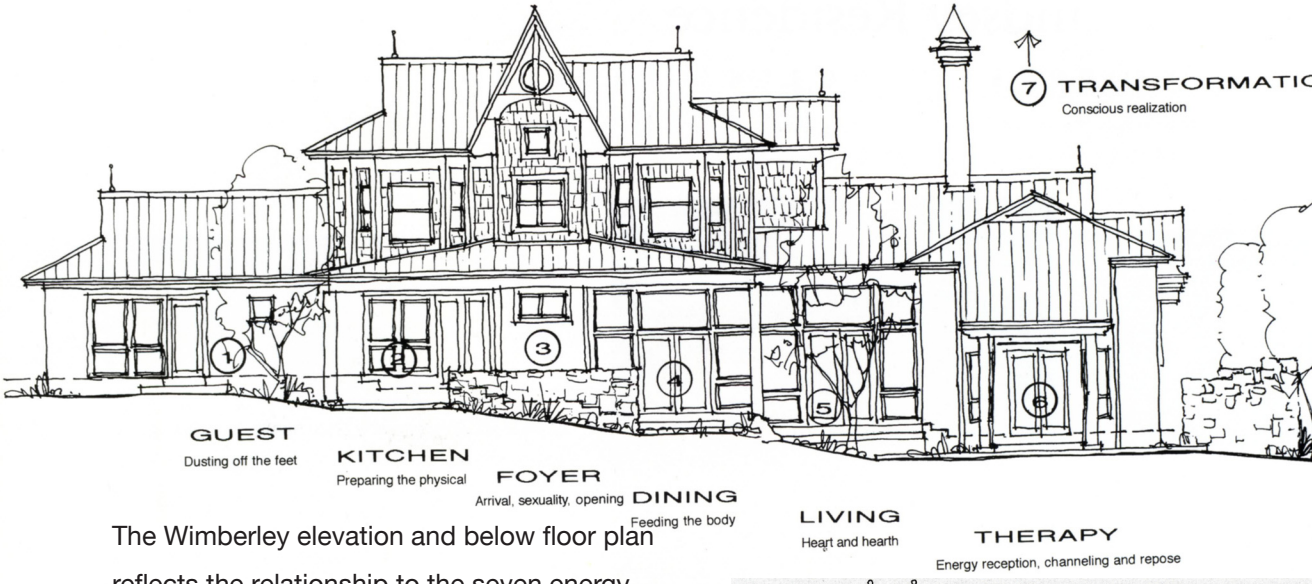
project name: Wimberley home of Healing
location: Wimberley, Texas
architect: Marley Porter Living Architecture

basic organization: A home designed for healing based on the golden section , numerology, and feng shui. The house is broken in sections; guest, kitchen, foyer, dining, living, therapy and transformation

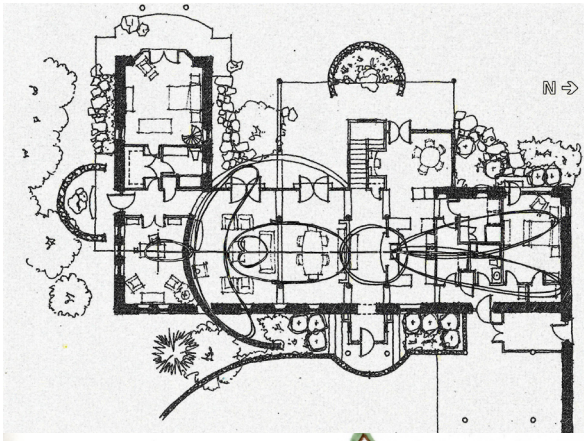
client type: Home owner, energy healer
architectural style: Victorian mixed with Texas vernacular

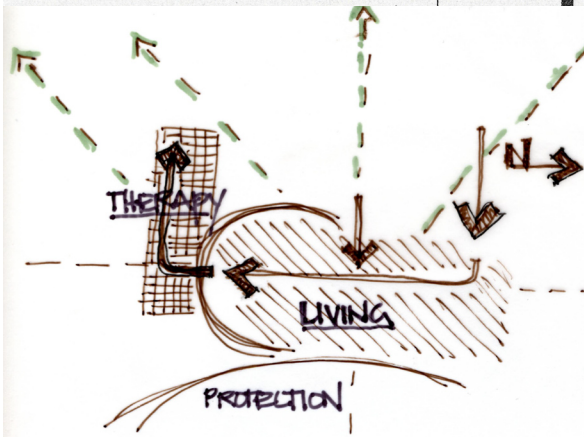
special features:
"envelope the healing energies of the existing site and magnify them to a specific point of focus."
physical context & site conditions:
Among the cedar trees in the hills, surrounded by views, a stream, ponds and a waterfall.

sources:
Crisp, Barbara. Human spaces, Life-Enhancing Designs for Healing, Working, and Living. Massachusetts, 1998.
photos: Fabrizio DaRold
Plans and drawings: Living Architecture



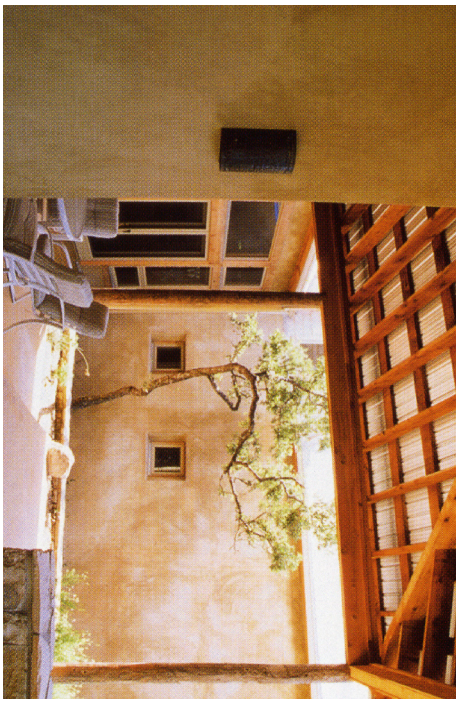
The Wimberley elevation and below floor plan reflects the relationship to the seven energy chakras fo the human body. The architect worked with the home owner to create a progressional healing process through the flow of movmeent and energy from the arrival to the transformational phase. The use of curved rock walls act both as a protection in the front of the house ans well as an energy clooector on the interior spaces. Nautral light is brought into the kitchen and treatment room with the use of skylights and carelfully positioned windows in either slits in the walls or clerestory levels. Views to the west gardens and sounds of water are off the living area while the patio to the west provides a transitional shaded space between the house and the pool, creek and waterfall.





Photos and drawings from Crisp, Human Spaces.

Marley Porter







Wimberley Home of Healing

Case Studies

James Cutler

Healing Homes

project name: PaulK Home, Revering The Land

location: Washington State

Architect: James Cutler

size: 2300 sq ft

basic organization: A modest home with two car-detached garage

client type: Retired couple

Physical context & site conditions:

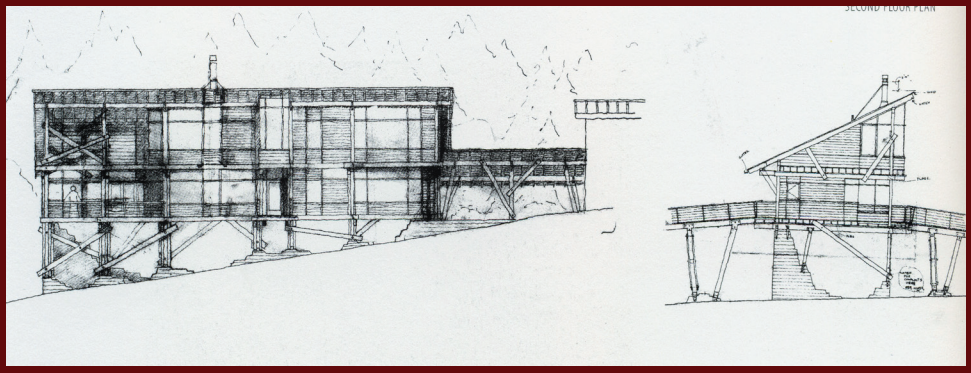
Placed within a dense forest and perched on a 200-foot bluff that overlooks Hood Canal, the house has bridges to connect between the tees as the movement throughout the house is choreographed to experience the beauty of the forest.

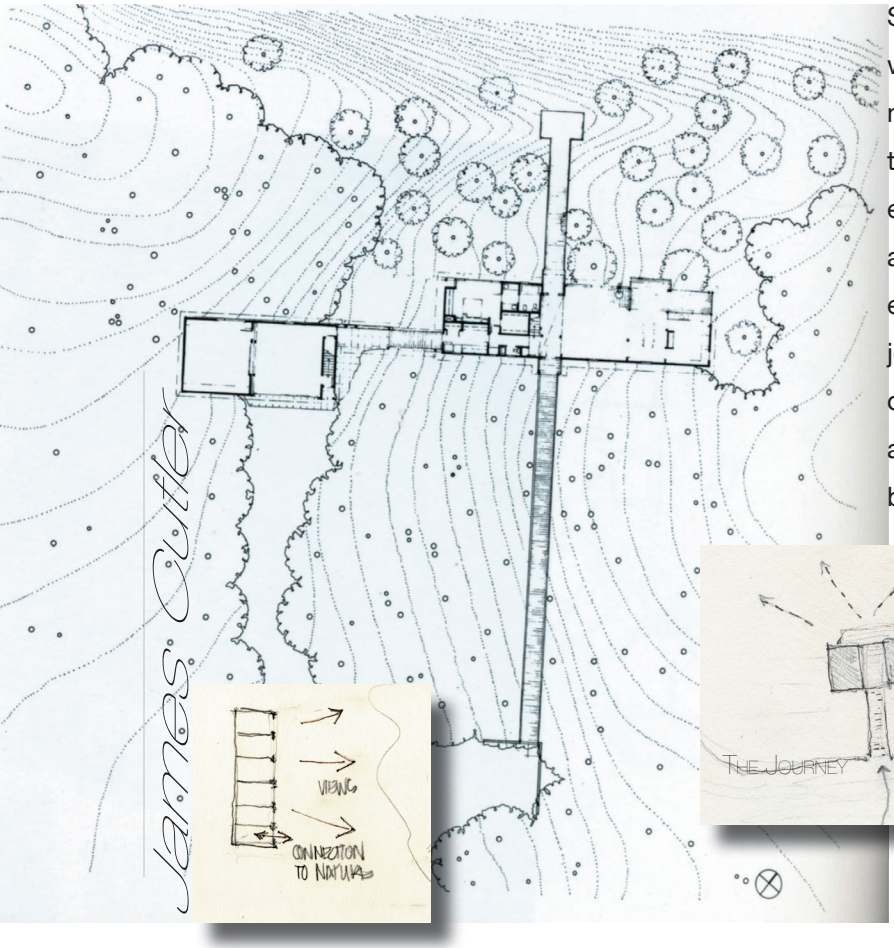
sources: Zevon, Susan. Outside Architecture. Massachusetts, 1999.



Paulk Home

graphic analysis





Subtle Integratoin with nature by minimal disturbance to the natrual environment is achieved. The experience is in the journey that begins on foot at the start of a very long wooden bridge.

James Cutler





Photos and Drawings from Outside Architecture and Rockport, James Cutler

Paulk Home

Summary

The Typological Analysis was a necessary and helpful tool in determining the next step of the design process, the Programming. Looking at five different types of healing environments, both large and seemingly inpersonal to small and individualized gave the insight for a crossing within the functionality of the design as well as programmatic needs. To identify what type of place this healing center will become can only be done by taking understanding the program of each and applying elements of each to find the balance.

In a large 200 to 300 bed hospital it is easy to dehuminize the visitor, making their visit an unpleasant one as the patients are pushed through minute by minute down long dark and low corridors that take away all sense of direction and grounding to the surroundings. It is necessary to engage all of the senses for a place to be a true healing environment. Each one of the case studies has expressed this connection to nature, even the large hospitals like Kaiser and St Mary's. Kaiser and St Mary's both use concepts originated from early 1900's Florence Nightengale open air and heliotherapy designs. The finger-like designed wards achieved the most benificial healing environment, not the bed in a sealed box concept as seen in most traditional hospitals.

The expression varies from a radial plan to a geometric plan broken with pocket gardens and parks to a free flowing organic layout of small buildings placed in a hillside, along a creek or wherever the land may take it.

RESEARCH METHODOLOGY
INTRODUCTION
RATIONAL & GOALS
TYPOLOGICAL ANALYSIS
PROGRAMMING
SITE ANALYSIS
MASSING
SUMMARY

Programming

Programming

Introduction

Programming is a useful tool in determing the need of the users. The process thus far has begun to identify the type of facility necessary to achieve the goals of the thesis. This exercies is a brainstorm in identifying the spaces needed then analysing the adjacencies and supporting functions required. The most important part of the analysis began with an understainding of the primary and secondary users of the facility. The primary users, or end users are those that frequent the facility on a daily or weekly basis for individual reasons and those that come from a distance to stay for a weekend or a week on a personalized program. The secondary user of the center are the Doctors, therapist and support staff. Identifying the needs of the user to obtain the nature and the scope of the project is a necessary step in the early stages of design.

Users—Daily, Weekend, Weekly

Waiting Room—200SF

Treatment Rooms—2100SF

Each discipline shall be allowed 3 at 100 SF

Seven main disciplines

Dinning/Multifunctional Room—2000 SF

Dance, Yoga, Pilates Studios 2 @ 1700 SF—3400 SF

Women's Spa – Bath House—1220 SF

check-in 100 SF

locker rooms at 200 SF

shower room 120 SF

bath area indoor and outdoor 600 SF

Men's Spa—Bath House—1220 SF

check-in 100 SF

locker rooms at 200 SF

shower room 120 SF

bath area indoor and outdoor 600 SF

Café—1000 SF

Market—2920 SF

Restrooms 250 SF

Healing Foods Grocery Store 2000 SF

Market Offices 3 at 90 SF

Storage 400 SF

Guest Villas—8400 SF

24 Guest villas at 350 SF each

Villa outdoor space—1200 SF

Each villa will have an outdoor space 50 SF each

Fitness Center—1700 SF

Restroom—240 SF

Juice Bar 100 SF

Personal Training 250 SF

Child Care 700 SF

Meditation/music rooms 3 at 90 SF—270 SF

Healing Gardens—2500 SF

Rooftop Gardens—2000 SF

Atrium—1000 SF

Circulation approx—3600 SF

All corridors min of 8 feet wide

Operational Staff: MD, OMD, ND, therapist, nutritionist, chefs

Therapists Offices—1260 SF

Each physician and therapist shall have 90 SF of office space, min of 14 offices

Nutritionist and Chef joint Office—450

SF
Staff Lounge and garden—500 SF
Kitchen—1000 SF
vegetable and herb garden—300 SF
Restrooms—400 SF
Supply Storage—1050 SF
each discipline will have their own
storage area of 150 SF
Research Labs—200 SF
Circulation approx—3600 SF

Administrative Staff

Check in Desk/Lobby—525 SF
Administrative Offices—270 SF
3 offices at 90 SF each
Conference Room –300 SF
Supply Room—150 SF
Storage—150 SF
Technical Support--400 SF
Security office—180 SF

Ancillary Staff

Janitors Locker—200 SF
Elec/Mech room—50 SF

Typology

Medical Facility
Alternative Healing Facility
Integrative Healing Facility
(Complementary and
Alternative Medicine)
Medical resort spa

Total Square Footage including the Healing Gardens—approx. 46,415 SF (plus underground parking for approx. 250 spots)

Integrative Healing Arts Urban Retreat

Project Definition

This Program is designed to provide a 'new', revived way healing those in need while providing preventative therapies for those in good health. A health facility that integrates complementary and alternative medicines to provide a welcoming resort environment. The facility will

also provide a Healing Foods Market and Café that is centered on providing food for all blood types.

Mission

To design a facility that is grounded and intertwined by nature focused on natural healing based of the individuals in makeup and need. To design a facility that promotes a lifestyle of balance based on the healing powers of food and gardens. A facility that will uphold Hippocrates and Aristotle's views and theories to live in balance within ourselves as well as within the earth. 'Whole Living'.

Typology

A combination between the large complex conventional medical center such as Kaiser Permanente Santa Clara Medical Center and the alternative health centers such as The Farm at San Benito while integrating the feel and philosophies of a Destination Spa, such as California's Cal-A-Vie health resort.

Location

The site is located on the edge of Naval Station Newport, Rhode Island. The abandoned Historic Naval Hospital situated on the waterfront near the Newport Bridge is approximately 6.5 acres and currently owned by the United States Navy. It is bordered on one south by the 'Historic Point' housing area of downtown Newport and to the north by naval station to the west by lower income housing and to the east the Newport bay. The Navy is discussing possible plans of giving the building and site to the city of Newport for a adaptive re-use city project. This area is prime real estate with incredible views toward the Newport bridge and across the bay as well as other abandoned

buildings on site that will be evaluated as to re-use possibilities or demolition. The landscape is mature and well kept.

Users

Active and Reserved Military Personnel

Local Residence of Newport

Medical and Support Staff

Tourists

Children

Spatial Summaries

Public Areas

Grounds, Courtyards, Waterfront, Café, Healing Foods Market

Semi Private

Healing Gardens, joint Fitness and Dance Studios Classrooms, Lecture Hall and Auditorium, Day Care, Library and Reading/Relaxation Rooms, Music Rooms

Private

Examination/Consultation Rooms, Massage and other Therapeutic Treatment Rooms, Offices, Staff Lounge, individual Guest Villas, Research Lab, Women's and Men's Spa

Therapeutic services

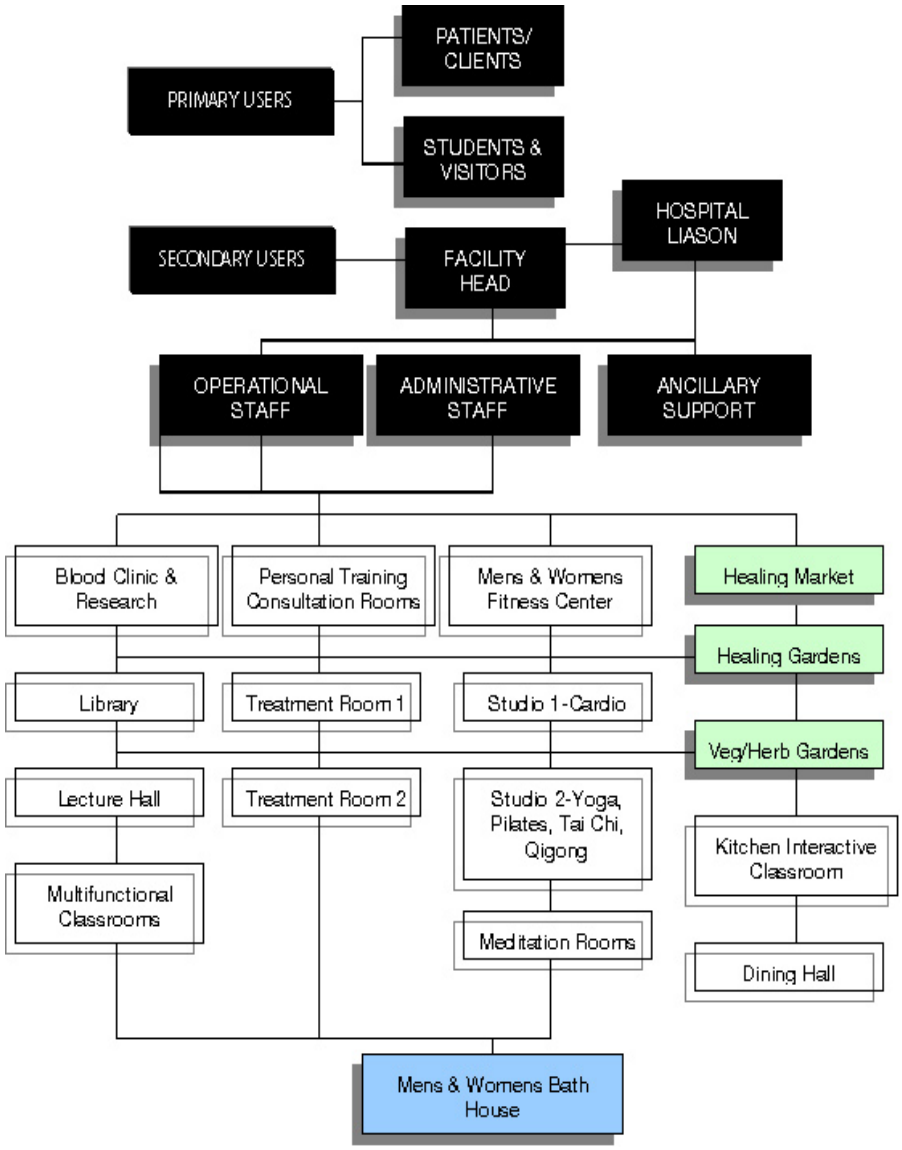
Naturopathy, Massage, Reflexology, Reiki, Rrofling, Chiropractic and Active Release Technique (ART), Bach Flower Essence, Cranio Sacral, Acupuncture, Ayurvedic Medicines, Yoga, T'ai Chi, Qigong, Herbal Medicine, Homeopathy,

Aromatherapy, Color Therapy

Education

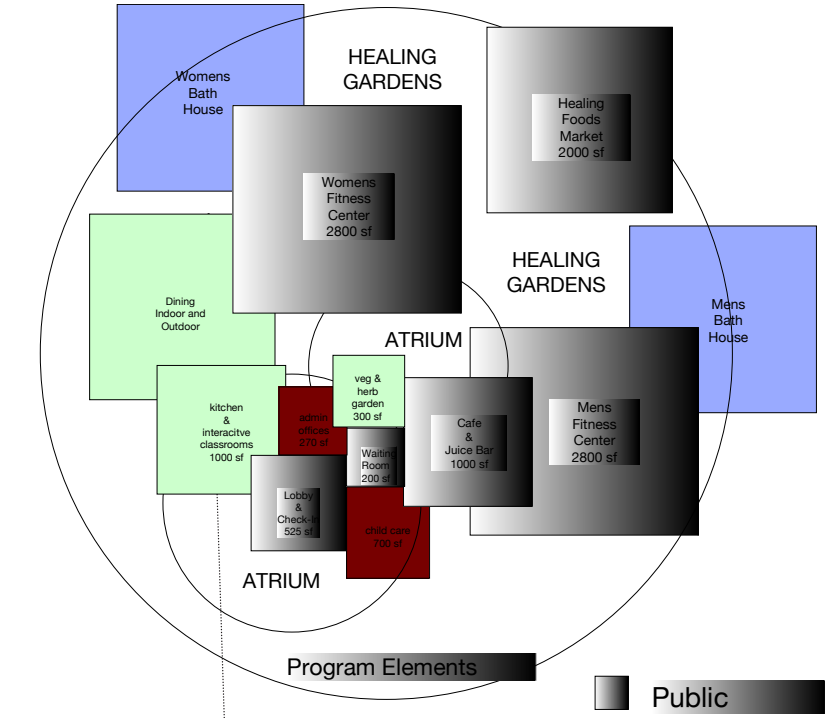
Therapeutic Gardening, Cooking, Blood type Diet and Nutrition, Fitness classes, Massage & Reflexology, Art & Music and overall Life Balance and Vitality workshops.

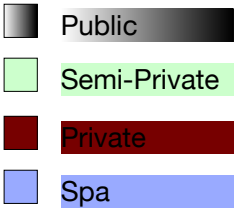
Programatic Flow Chart

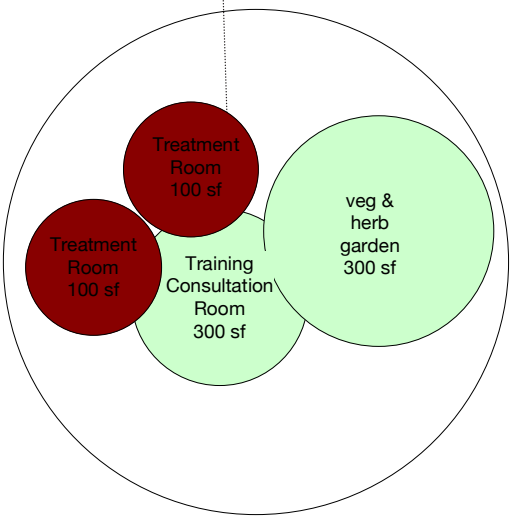


Programatic Adjacency Matrix









TREATMENT PODS

Summary

Project Definition

This Program is designed to provide a 'new', revived way healing those in need while providing preventative therapies for those in good health. A health facility that integrates complementary and alternative medicines to provide a welcoming resort environment. The facility will also provide a Healing Foods Market and Café that is centered on providing food for all blood types.

Mission

To design a facility that is grounded and intertwined by nature focused on natural healing based of the individuals makeup and need. To design a facility that promotes a lifestyle of balance based on the healing powers of food and gardens. A facility that will uphold Hippocrates and Aristotle's views and theories to live in balance within ourselves as well as within the earth. 'Whole Living'.

Typology

A combination between the large complex conventional medical center such as Kaiser Permanente Santa Clara Medical Center and the alternative health centers such as The Farm at San Benito while integrating the feel and philosophies of a Destination Spa, such as California's Cal-A-Vie health resort.

Location

The site is located on the edge of Naval Station Newport, Rhode Island. The abandoned Historic Naval Hospital situated on the waterfront near the Newport Bridge is approximately 6.5 acres and currently owned by the United States Navy. It is bordered on one south by the 'Historic Point' housing area of downtown Newport and to the north by naval station to the west by lower

income housing and to the east the Newport bay. The Navy is discussing possible plans of giving the building and site to the city of Newport for a adaptive re-use city project. This area is prime real estate with incredible views toward the Newport bridge and across the bay as well as other abandoned buildings on site that will be evaluated as to re-use possibilities or demolition. The landscape is mature and well kept.

Users

Active and Reserved Military Personnel
Local Residence of Newport
Medical and Support Staff
Tourists
Children

Spatial Summaries

Public Areas

Grounds, Courtyards, Waterfront, Café, Healing Foods Market

Semi Private

Healing Gardens, joint Fitness and Dance Studios Classrooms, Lecture Hall and Auditorium, Day Care, Library and Reading/Relaxation Rooms, Music Rooms

Private

Examination/Consultation Rooms, Massage and other Therapeutic Treatment Rooms, Offices, Staff Lounge, individual Guest Villas, Research Lab, Women's and Men's Spa

Therapeutic services

Naturopathy, Massage, Reflexology, Reiki, Rrofling, Chiropractic and Active Release Technique (ART), Bach Flower Essence, Cranio Sacral, Acupuncture, Ayurvedic Medicines, Yoga, T'ai Chi, Qigong, Herbal Medicine, Homeopathy, Aromatherapy, Color Therapy

Education

Therapeutic Gardening, Cooking, Blood type Diet and Nutrition, Fitness classes, Massage & Reflexology, Art & Music and overall Life Balance and Vitality workshops.

Research Methodology
- **Introduction**
- **Rational & Goals**
- **Typological Analysis**
- **Programming**

Site Analysis
- Introduction
- Physical Landform
- Microclimate
- Context
- Infrastructure and Legal Restrictions
- Circulation
- Opportunities and Constraints

Massing

Summary



Introduction

Newport, Rhode Island was chosen for this thesis for a number of reason. Considered the 'City by the Sea' you would assume that the opportunities to connect to the waterfront would be abundant, but in this small yet dense historic city tucked into the safe waters of the Newport Harbor, the chances are slim. The wealthy as well as the United States Navy have occupied and preserved the waterfront beauty but in doing so have left the public out. The harbor is completely developed around the fishing and yachting industry that finding a place to sit and watch the sunset in downtown becomes a difficult task. There are small pockets of views but only until the latest yacht pulls into port to blocks it. The most interesting part to contemplate is the amazing ability this city has for balance. Newport has shown its ability to stabilize its economic growth during tough times and through the harsh winters during the tourist off season. The townspeople continue to reinvent Newport with a sound basis in natural beauty, history and architecture. It has proven that a bustling commercial, fishing and military industry has not stolen its charm, quality or desirability. There are still opportunities that need to be explored within the city for improvements such as a better residential connection to the waters edge, improved public transportation and walking routes or paths to encourage pedestrian circulation, and a better connection to the open space while gaining a better understanding of the built and natural environment.

The Naval Station has a significant amount of waterfront property that is under utilized. The possibilities exist to encourage open space uses for both the military as well as the native residence. As stated in the Newport Comprehensive Land Use Plan, "The presence of the United States Navy

Site Analysis

furthered land development initiatives and removed open-space. Sadly, much of Newport's open space opportunities and natural advantages were blindly sacrificed for urban renewal and various attempts at economic development." What the city might not realize is that while the US Navy has taken much of the waterfront property it has also kept the development to a minimum and a lot of the waters edge is left untouched. The old early 1900's Naval Hospital is currently abandoned and placed on a beautiful site of mature Red Maples and lush landscaping all facing the Newport Harbor and Bridge. The 12 plus acre site is a ghost town with so much potential waiting to be explored.

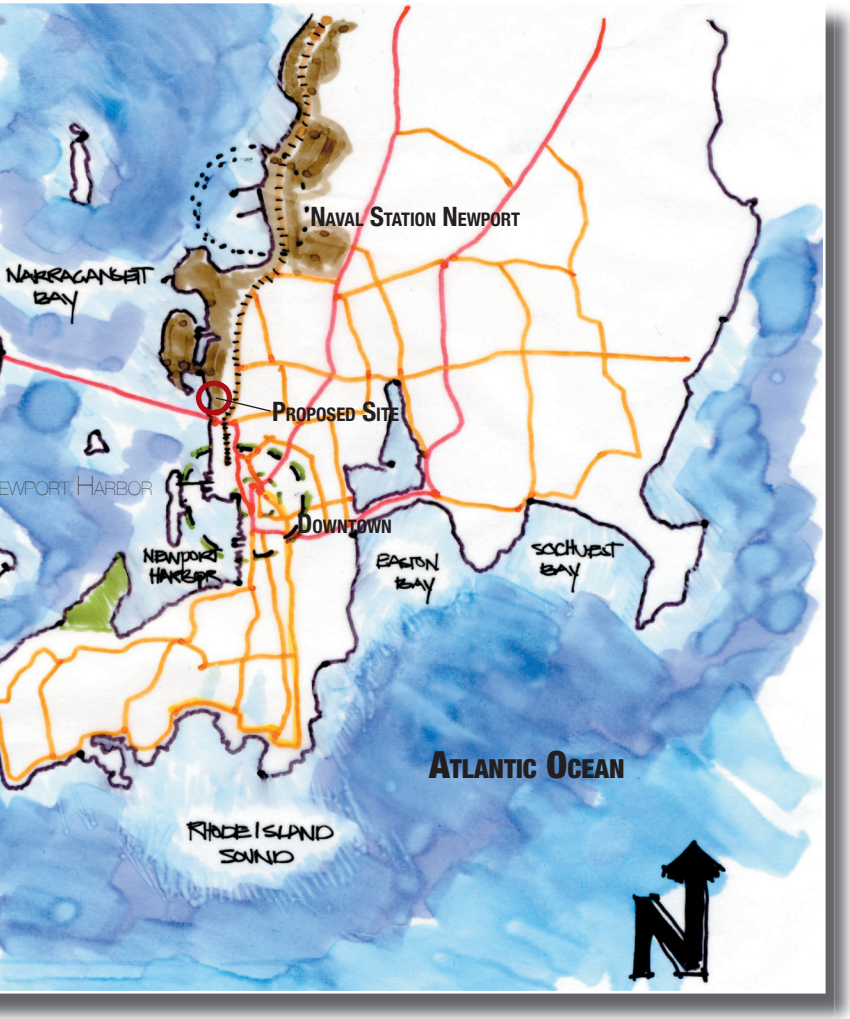
With the continuous 'smart' downsizing of the military forces more opportunities will arise to negotiate land use options for the surrounding towns and cities. It is critical that these negotiations and plans are well thought out, and that they provide use to the entire public for a natural connection to health and wellbeing. It is time that we give back to the earth, our communities, and the individual.

The plans of this thesis are to return the individual to nature within the urban context with the goal to provide a Body Solutions center' for the military and the community. With such natural beauty at your fingertips and a place that prides itself on being a resort town, Newport lacks the obvious opportunity of creating a whole city of healing. This might just be the next

Site Analysis



Physical Landform



Newport, Rhode Island

Latitude 41.5' N

Longitude 71.3' W.

Coastline Characteristics

Sandy Beaches

30' cliffs

Rocky Shorline

Inland marshes

Natuarl Harbor

Soil Composition

Unconsolidated Glacial till

Newport-type soil, Excellent for Agriculture

Geology

Bedrock base of shale, sandstone and conglomerate rock

Average Temperature

Summer 70 degrees

Winter 30 degrees

Average Rainfall

11 to 14 inches

Physical Landform



Vegitation:

Mature Trees and Landscape lines the waters edge

Physical Barriers:

Security fencing

Newport Bridege south of site



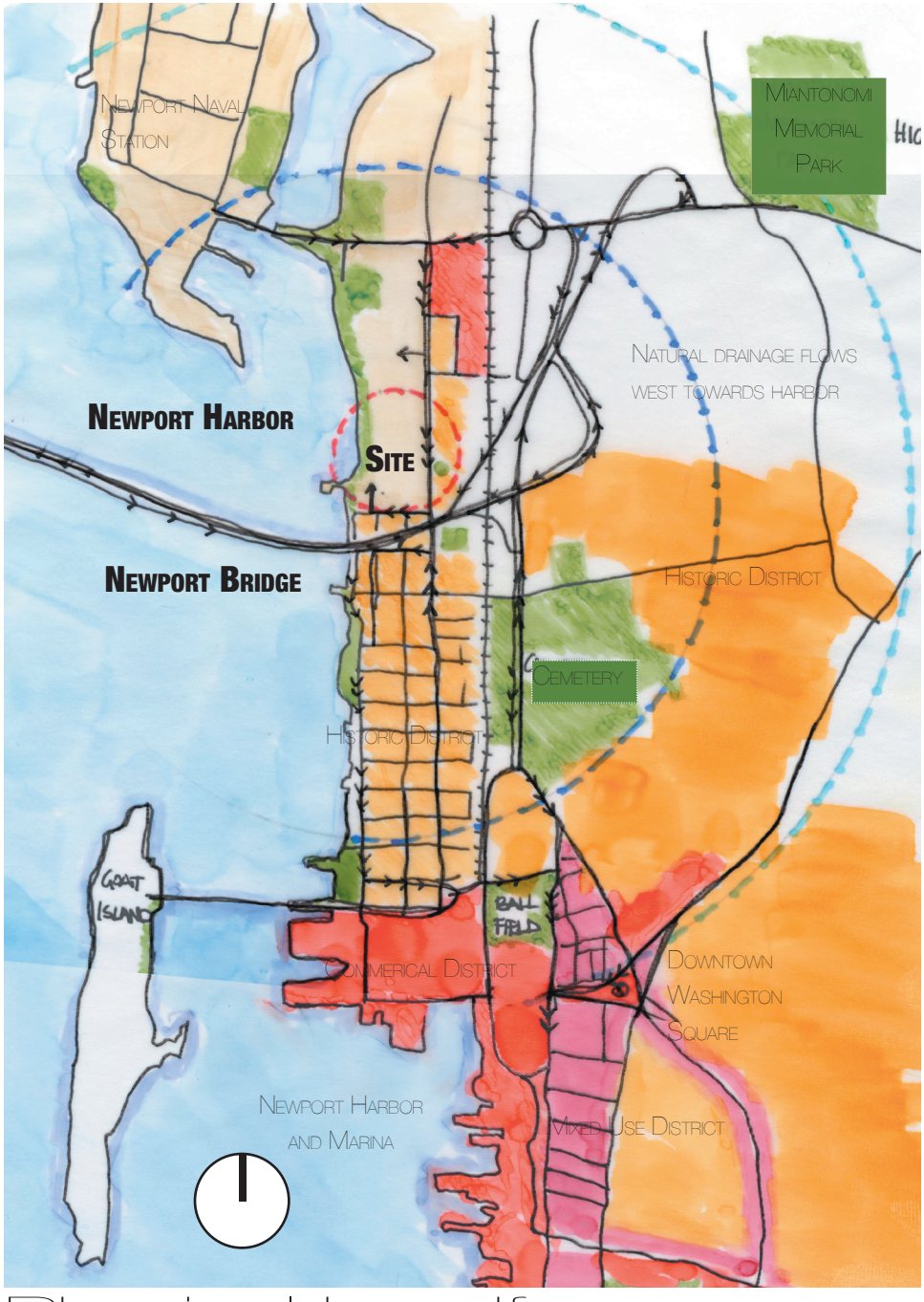
Topography:

Gradual Hills slopping southwest towards the water. The highest point is 3/4 of a mile northeast of site, Miantonommi Memorial Park.



Mining leading Products:

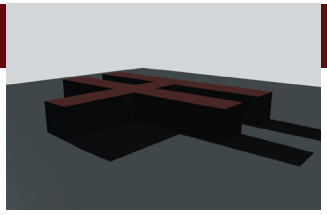
Limestone, Granite, Sande and gravel and some gemstones



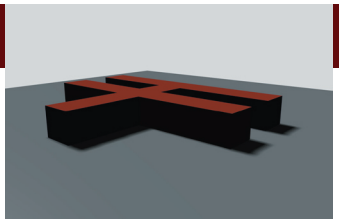
Physical Landform



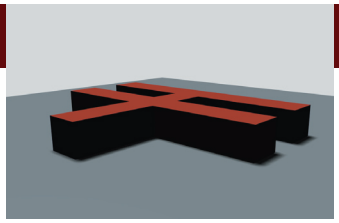
Newport Bridge. Photo by Holly Stuart



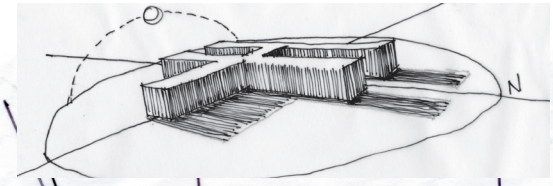
DECEMBER 21ST

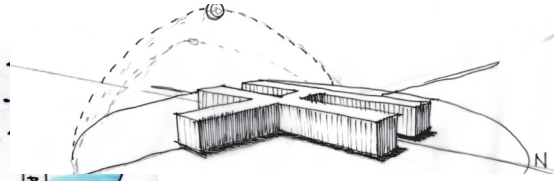


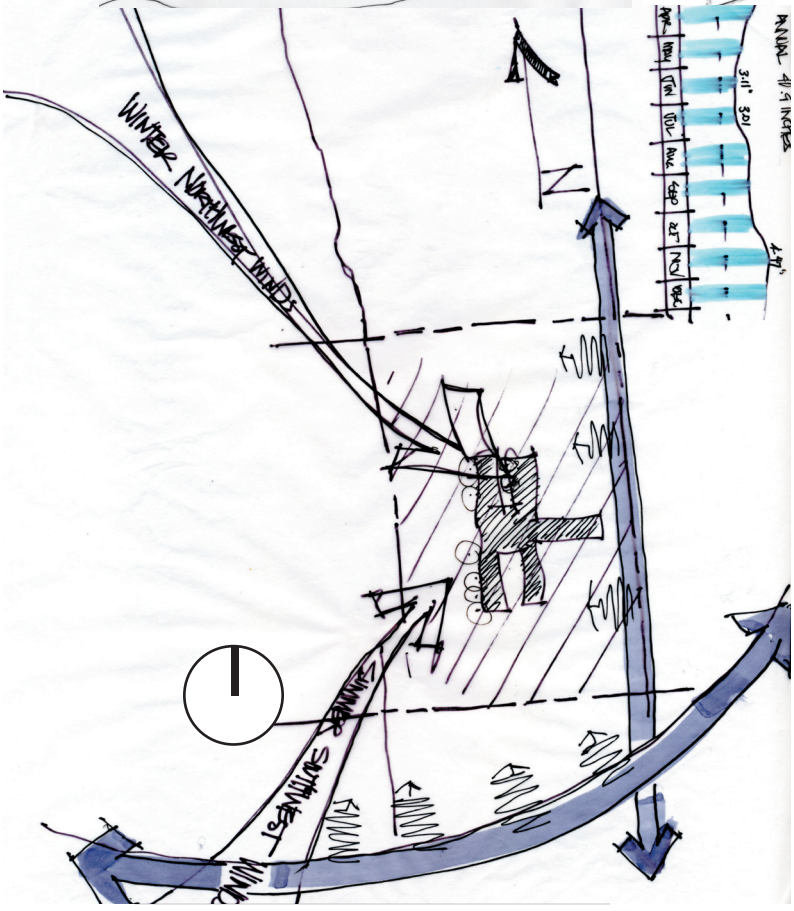
MARCH 21ST



JUNE 21ST







FOUR SEASONS

Prevailing Winds: Summer Northwest, Winter southwest

Rainfall is evenly distributed throughout the year

Temperate Marine climate fog in summertime makes a long growing season

Approximate Site 12.5 Acres

Existing Building faces due west which keeps the north side in the shade for several months out of the year.

Microclimate

Site Analysis



Newport Red Maples. Photo by Author



Rhode Island
common plants

Trees:

- Red Maple
- Sugar maple
- Birch
- Oak
- Ash
- Hickory elm
- Willow
- Poplar
- Atlantic White Cedar



Plants:

- Violo, Violet
- Azalea
- Dogweed
- Blue Genitian
- Iris
- Lily
- Orchid



Site Analysis

Regional Relationshiops

Existing Low income housing east of site

Historic Residential 'Point District south of site.

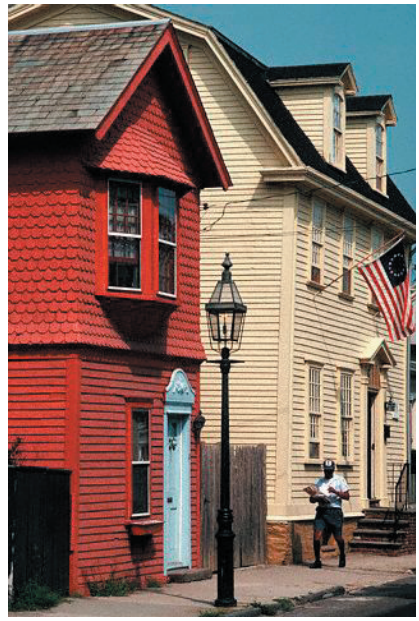
The Newport Naval Station to the North of the Site

Commercial district is one mile northeast of the site in the neighboring city of Middletown while the downtown commercial district and marina are less than a mile south of the site.

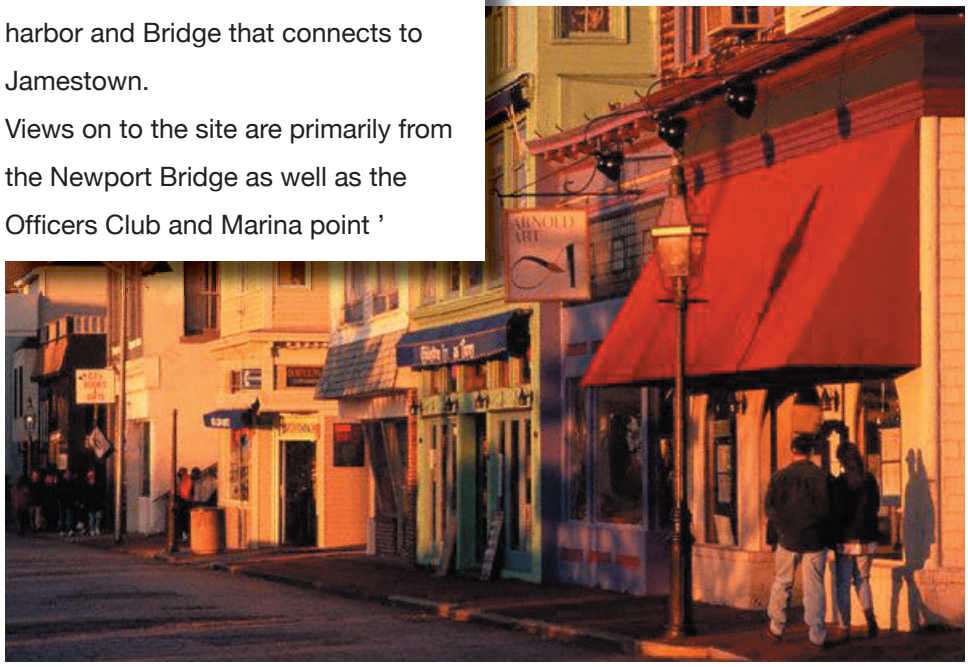
Natural views to the Newport harbor and Bridge that connects to Jamestown.

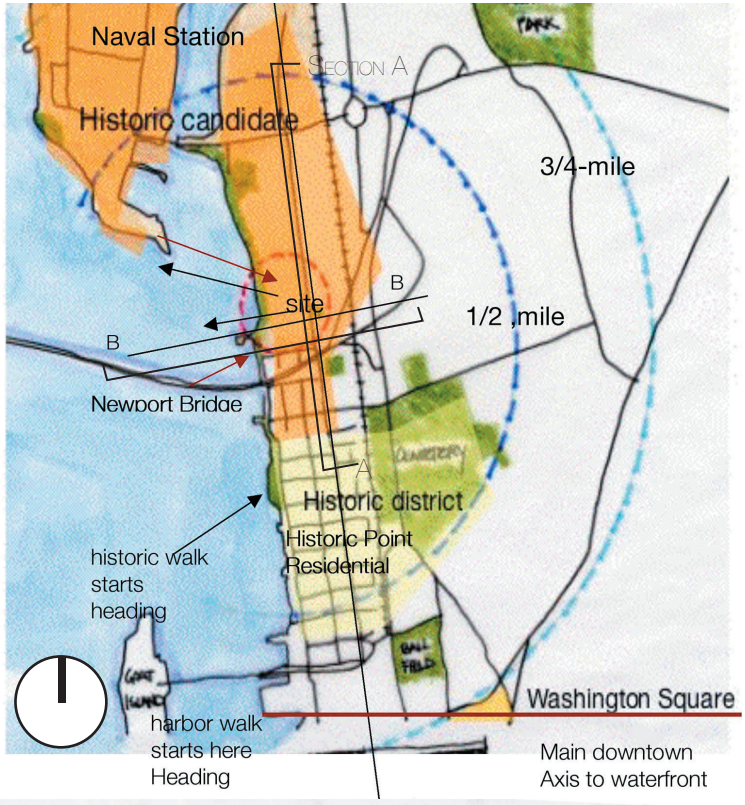
Views on to the site are primarily from the Newport Bridge as well as the Officers Club and Marina point '

Historic Colonial Homes

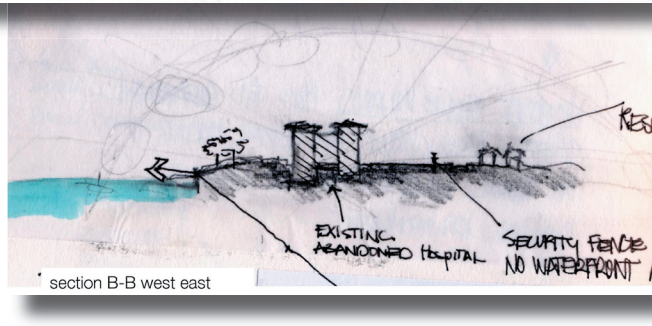


Downton, Lower Thames St, Mixed




Naval Station
Section A
Historic candidate
3/4-mile
site
B
1/2 mile
B
Newport Bridge
A
Historic district
Historic Point
Residential
historic walk
starts
heading
Washington Square
harbor walk
starts here
Heading
Main downtown
Axis to waterfront

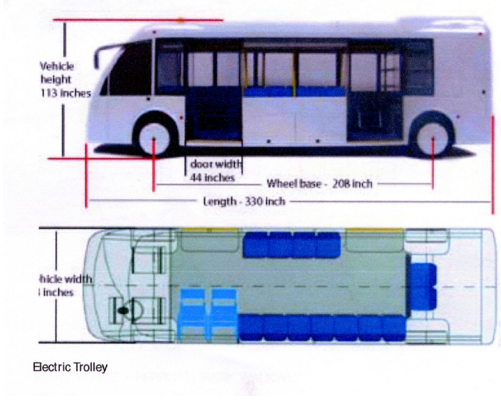

Newport Naval Medical Center
Existing
abandone
Newport
Bridge
section A-A north south


EXISTING
ABANDONED Hospital
SECURITY FENCE
NO WATERFRONT
section B-B west east

Site Analysis



Old rail line as Future Train Stop for Connections to Providence, Boston and other cities



Electric Trolley

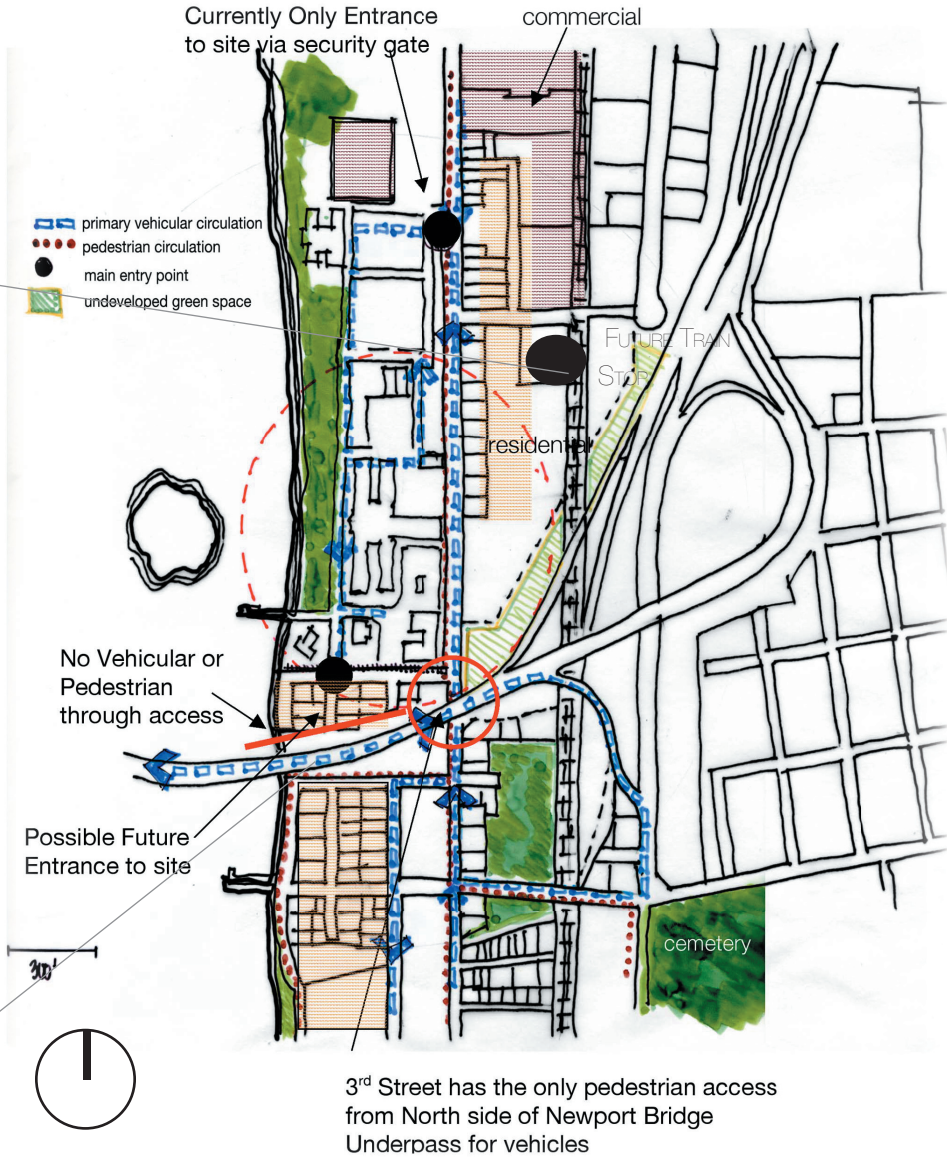
City proposed new minishuttle route throughout downtown Newport

Circulation



Primary vehicular traffic crosses the Newport Bridge while others travel by on boat

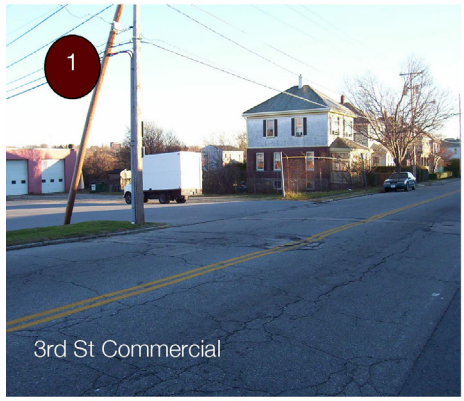
Circulation



Site Photo Map

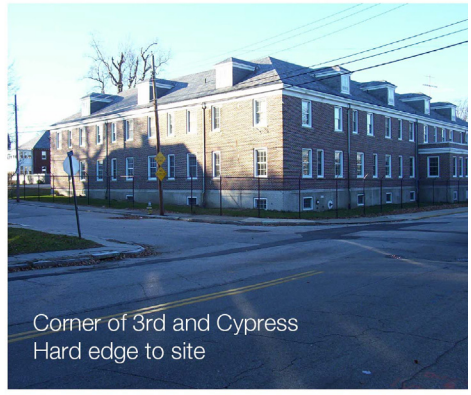


Outside Security Fence













Outside Security Fence













Inside Security Fence

Existing Abandoned Naval Hospital

Construction began in 1909 after the purchase of the 15 acre site overlooking Narragansett Bay. The Naval Hospital was commissioned on 15 April 1913. It consited of four wards, 159 beds, various administrative offices, a galley, mess hall and operating rooms. During World War I the hospital was renovated to accomodate nine wards with a 390 bed capacity. [illegible]



Existing West Facing Entry to Naval Hospital



East Facing Circulation Tower

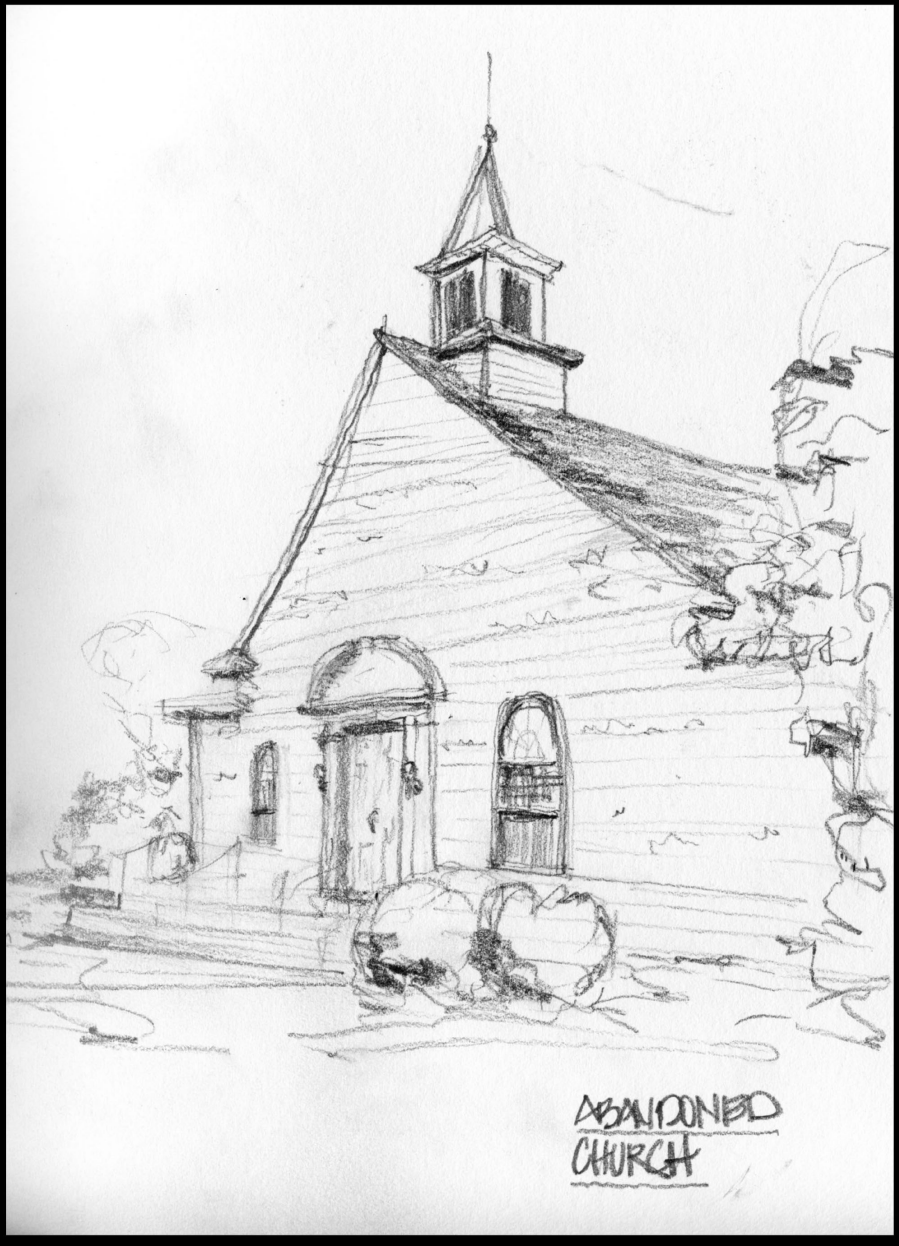




South Facing Courtyard

Site Sketches


RIGGS RD
LOOKING NORTH


ABANDONED
CHURCH

RESEARCH METHODOLOGY
INTRODUCTION
RATIONAL & GOALS
TYPOLOGICAL ANALYSIS
PROGRAMMING
SITE ANALYSIS
MASSING
SUMMARY

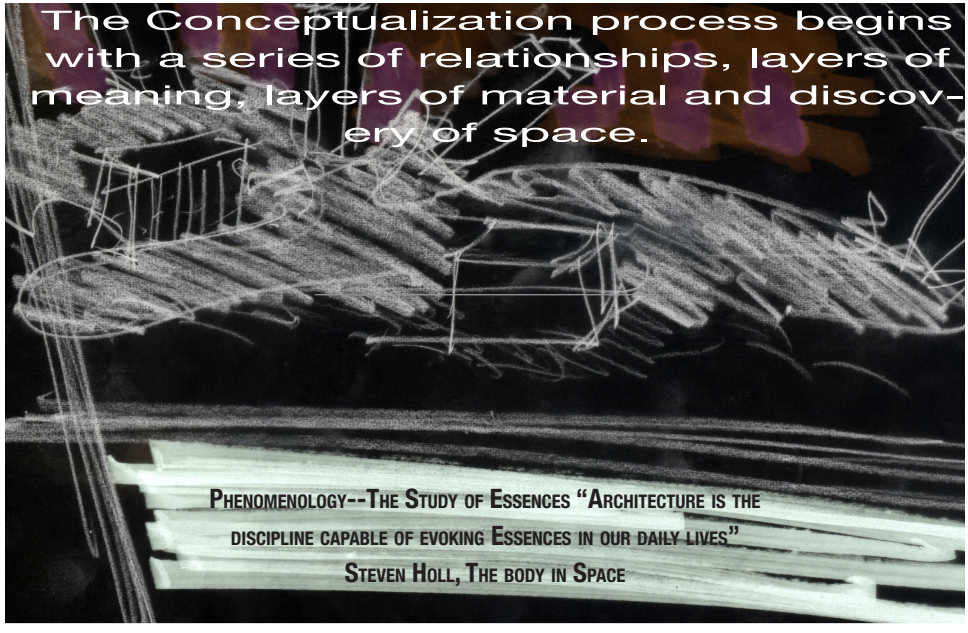
Massing

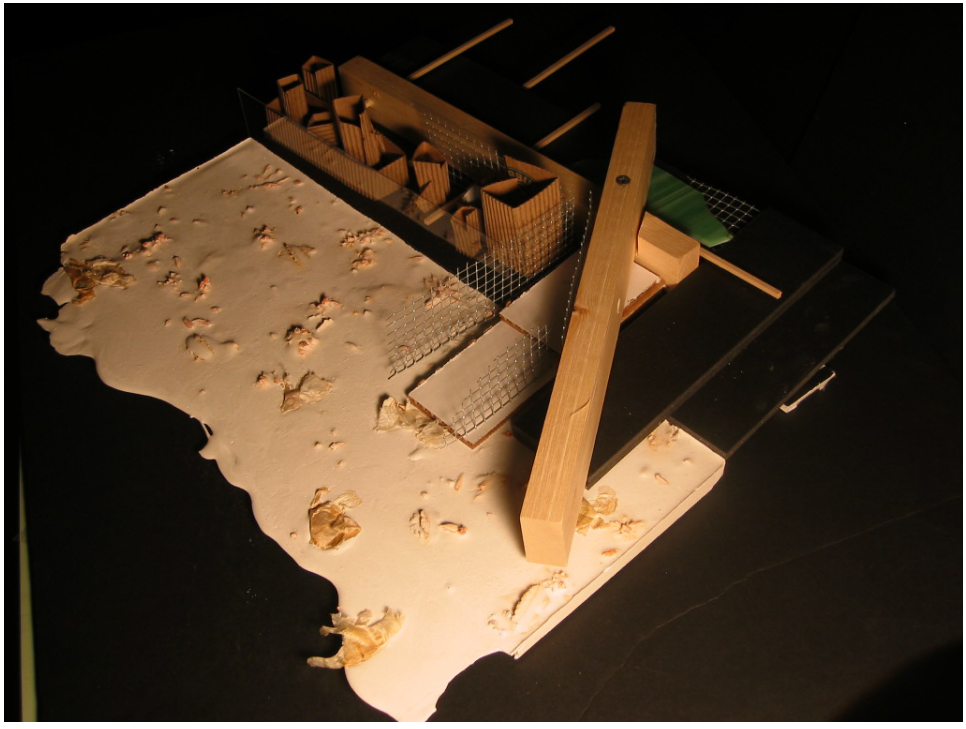
Massing

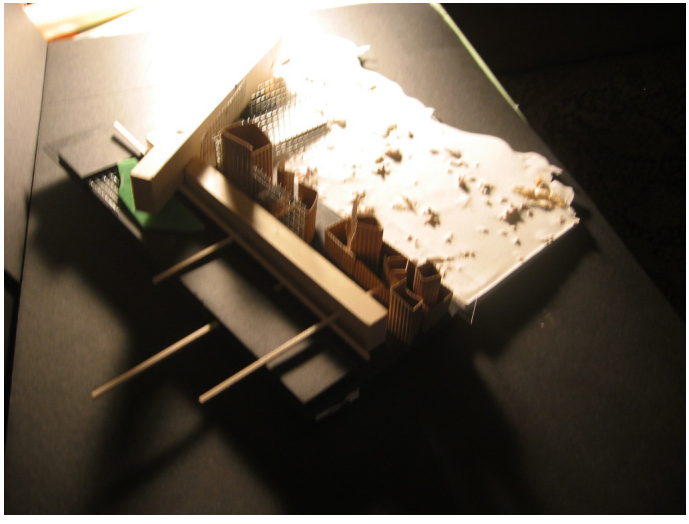
Introduction:

In the massing study an exploration of possibilities begin. The massing is the initial design phase where all the information gathered thus far is assimilated into ideas, movements and gestures on a large scale, the 'meta' scale of diagramming. This study envelopes the sensuality of the site, the surrounding buildings and elements that make it a unique and beautiful place. The exploration of space, light, movement and textures help identify in a conceptual manner what is natural to that specific location.

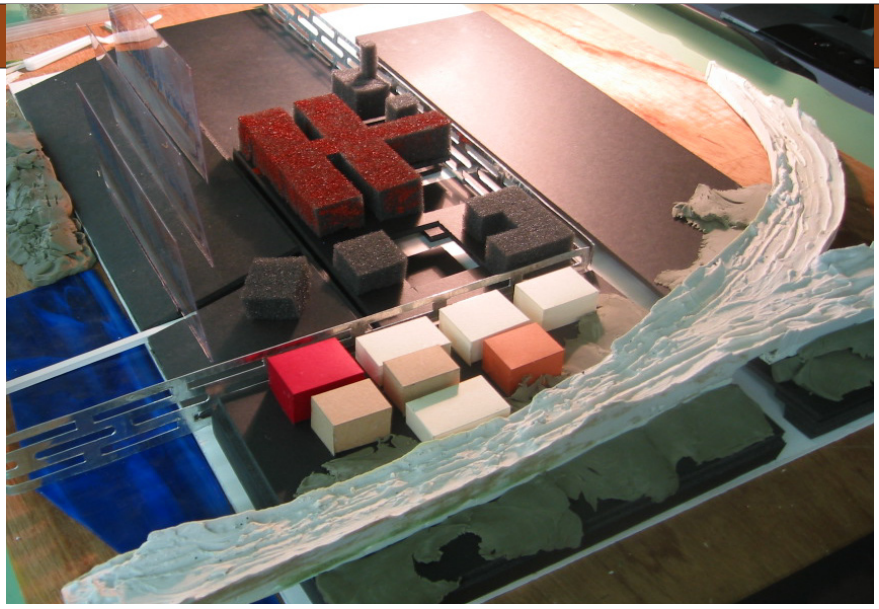
Massing takes all the parts and data from the previous sections and finds the connections, the relationships, and the overlaps to produce a type of layering system that will define the outcome of the design.



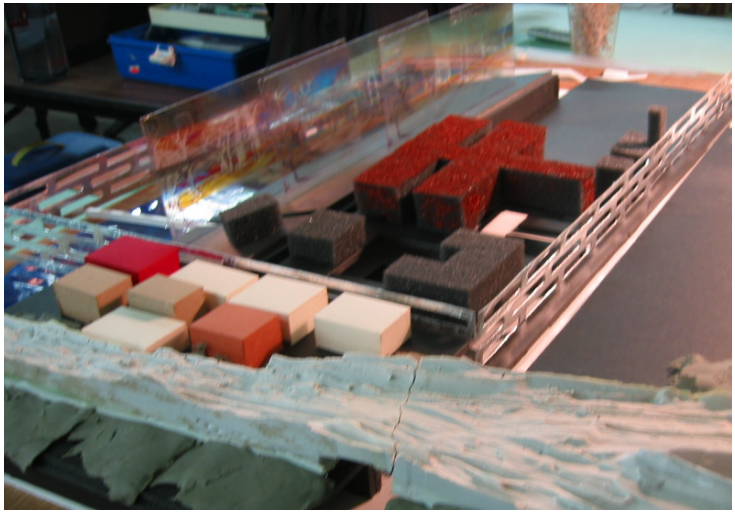


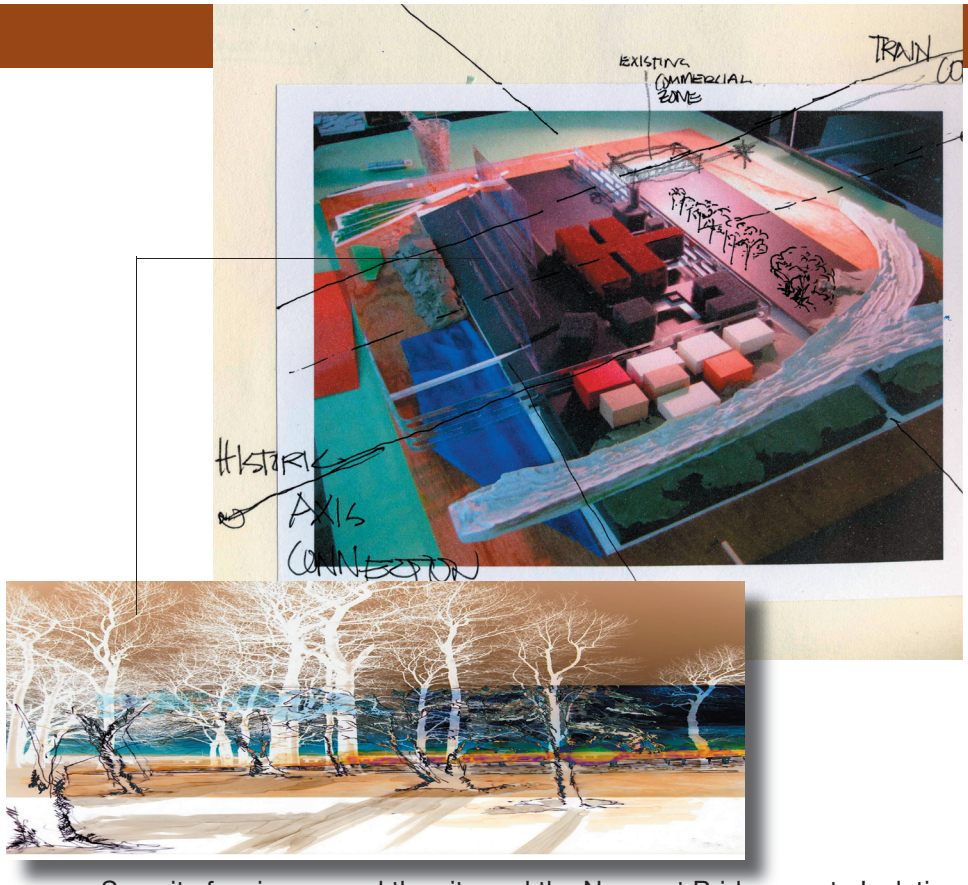


Meta-Diagraming.....
Space, Light, Movement, Textures found in Key site elements such as the Newport Bridge, Security Fencing, a dead road, the scents and beuaty of the harbor waters, the military instalation, the textures and diversity in seasons of the dense tree line and the quiet of still waters.

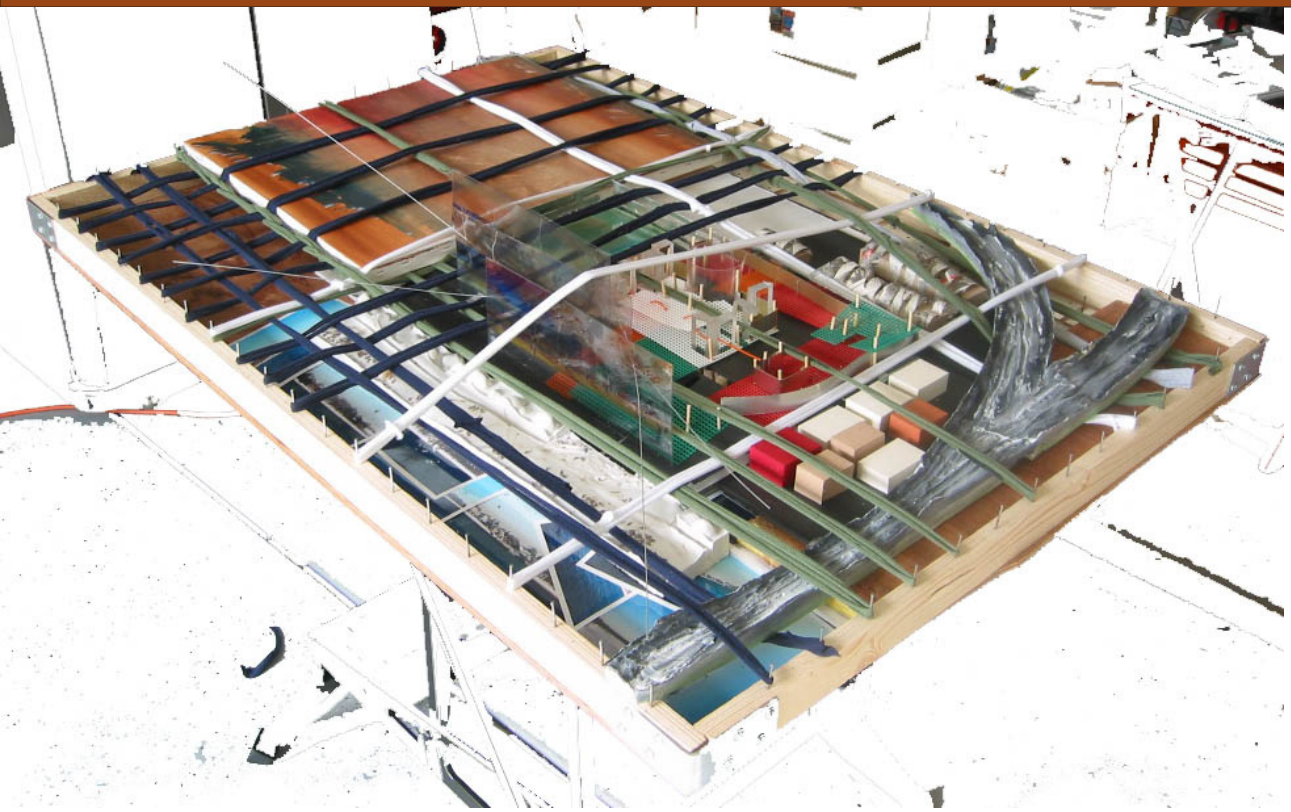


Understanding Existing Site Conditions, surrounding buildings, edges, voids versus solids. The black voids of existing parking lots are dead spaces with opportunities for integrated landscape gardens and parks connecting the campus of buildings.





Security fencing around the site and the Newport Bridge create Isolation from downtown Newport and neighboring housing. The existing Naval Hospital shown in Red above currently has a primary entrance due west with a strong geometric regular form that does not take full advantage of sun exposure throughout the day. The arrangement of the buildings turns its' back on 3rd Street and the local community while the orientation takes advantage of the waterfront views and mature multilayer of the tall red maples, birch and oak trees. The landscape creates a large green zone between the Naval Hospital and the water, an area that the Navy has preserved in its natural beauty with minimal disturbances or intervention.



Meta diagraming continued on a larger scale reaching out beyond the 12 acre site to explore the essence of the surrounding. The overall program overlays into the existing while weaving the site back together. The healing beings with the land of abandonment. The white are future patterns of movement or connection to the site and waterfront. The blue weaves the water into the land and structures for a good circulation and flow to occur. The green brings a natural balance and flow from outdoor landscape to interior landscape.





Massing in Meta Form

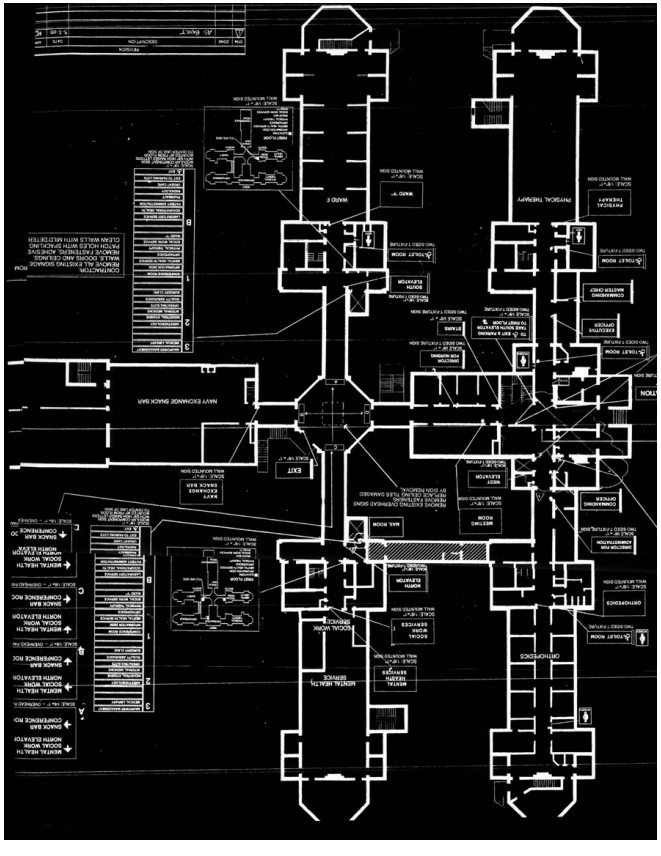


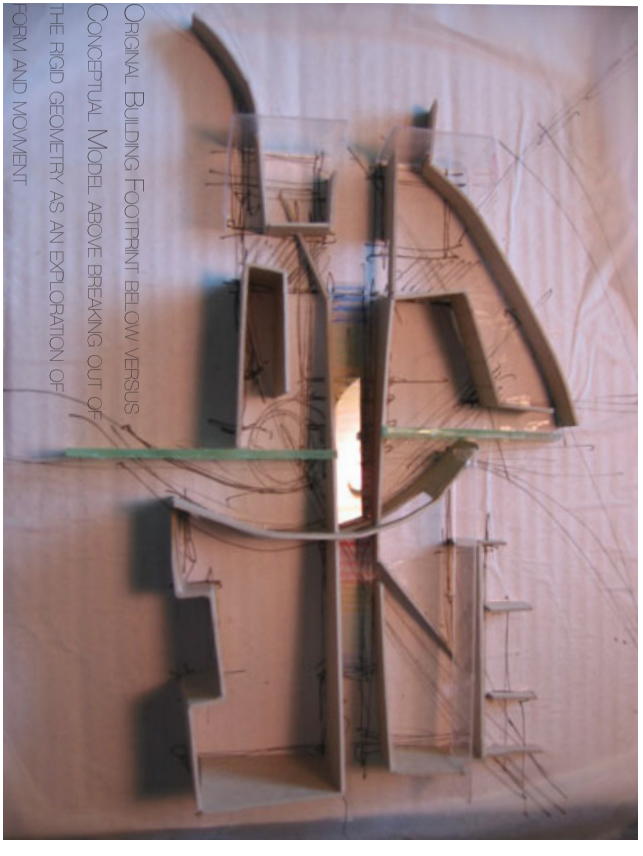
Site Reaction Inspiration



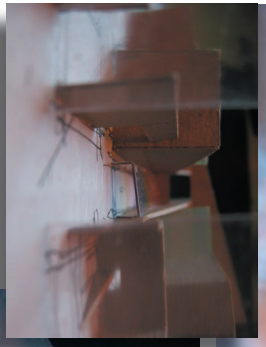
Massing Flow

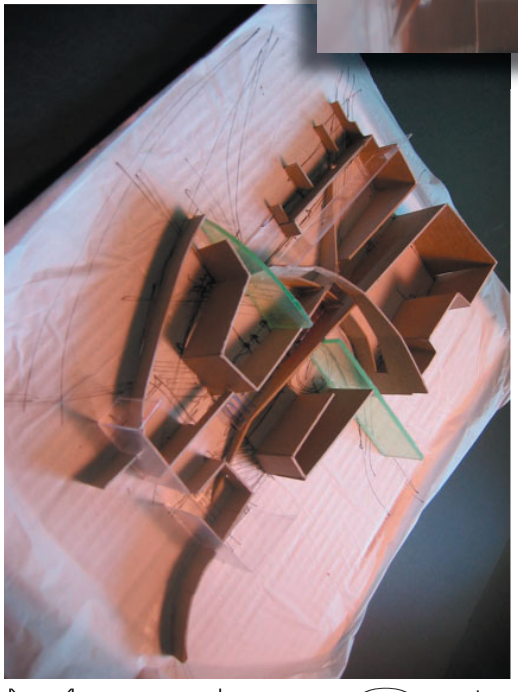
Massing Out of the Box

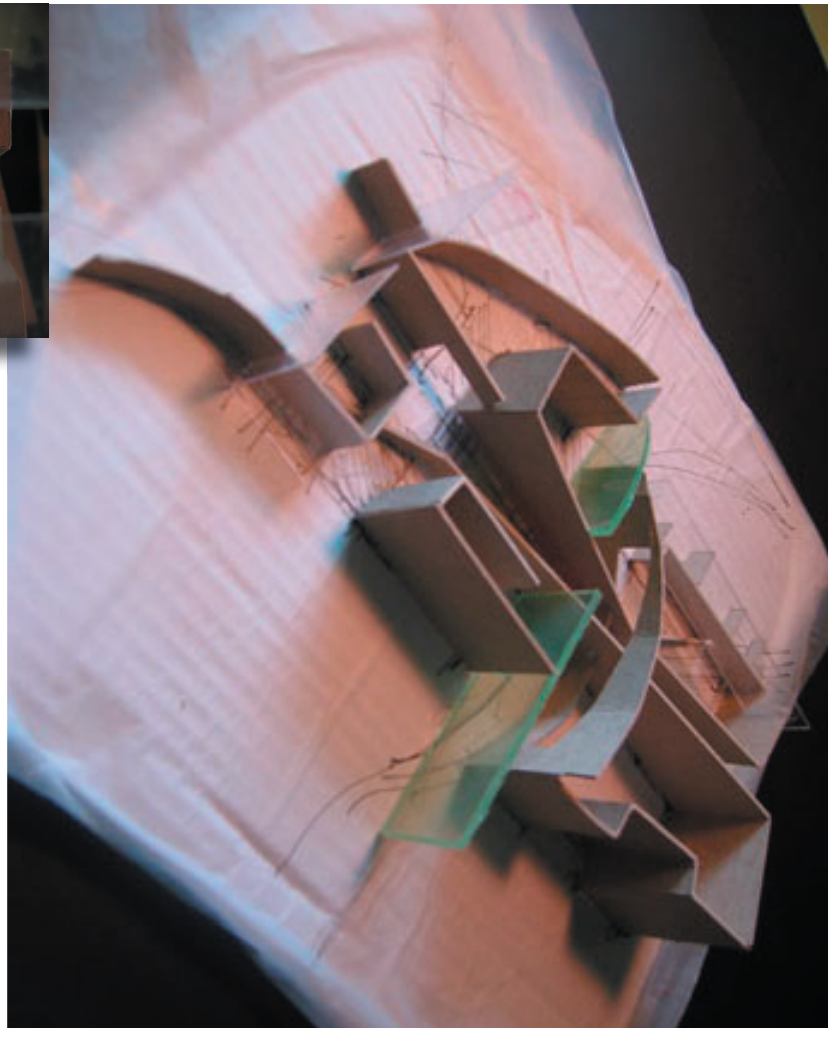




Original Building Footprint below versus Conceptual Model above breaking out of the rigid geometry as an exploration of form and moment

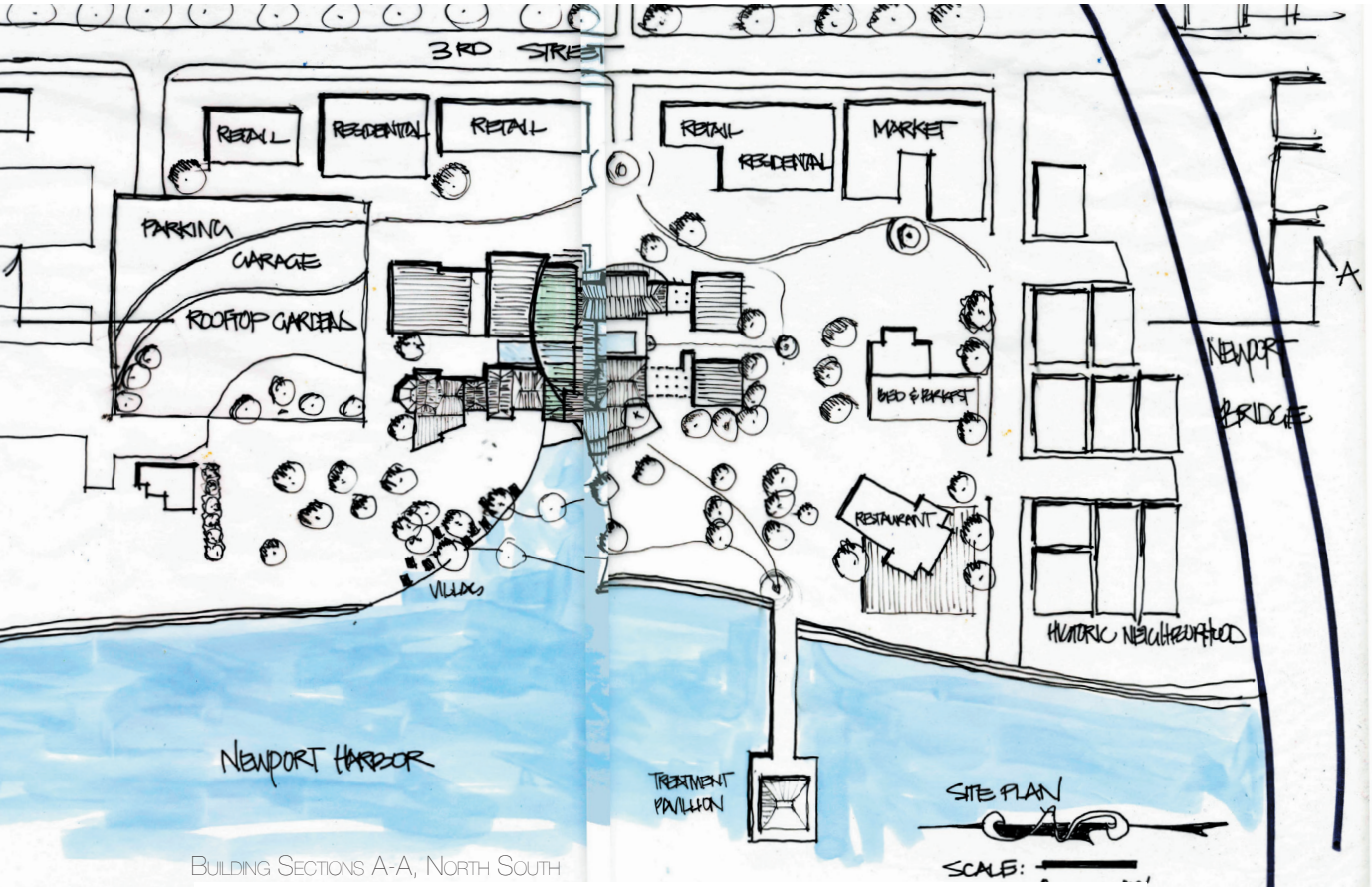




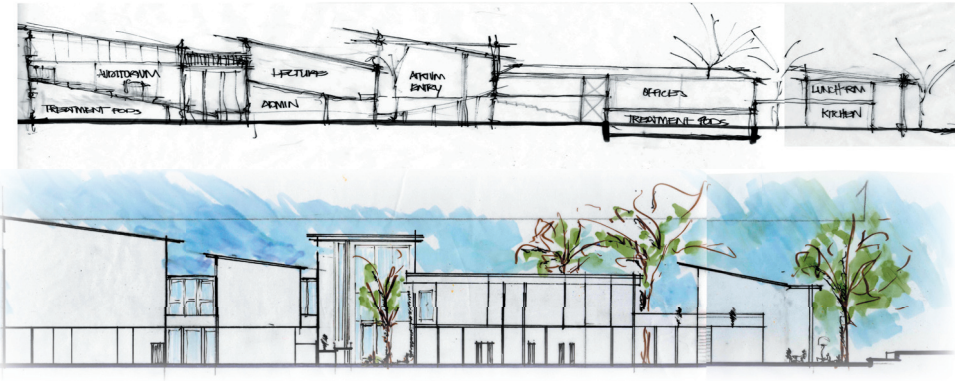


Massing Out of the Box

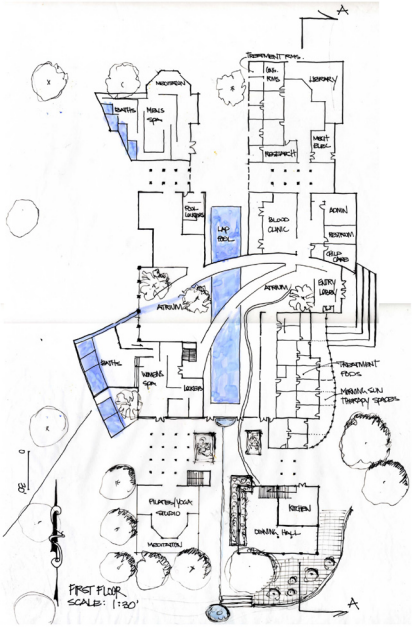
Conceptual Site Plan



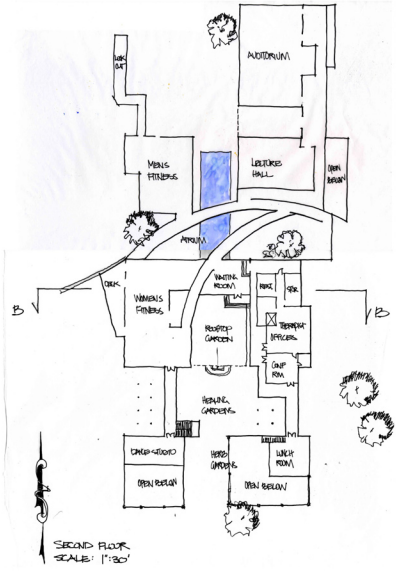
Building Sections A-A, North South

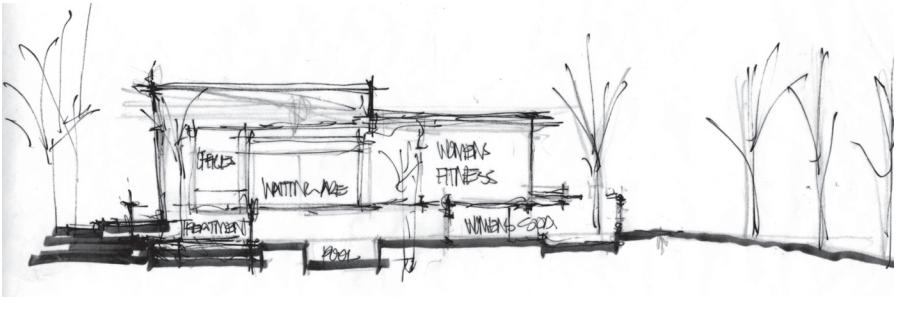


First Floor Plan

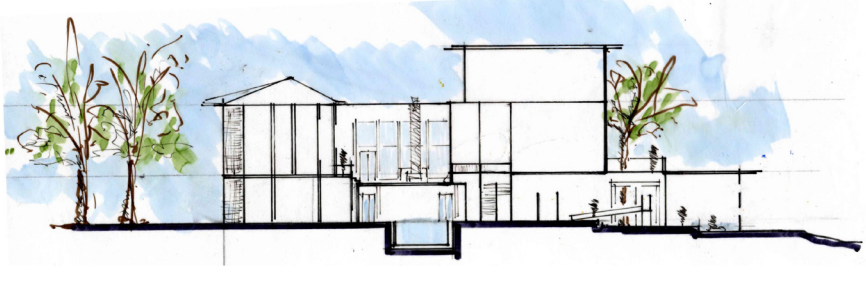


Second Floor Plan





Buidling Section B-B, East West



Massing

Summary

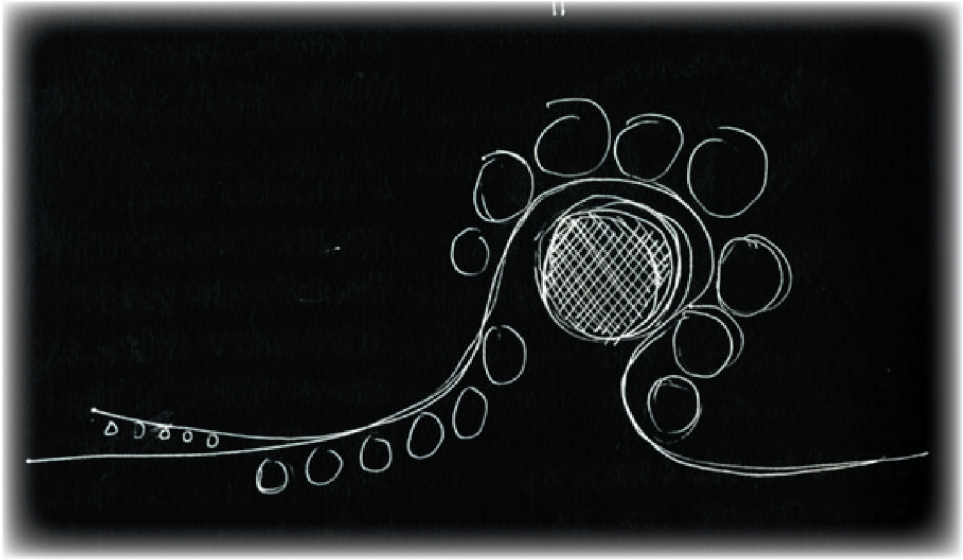
The massing study not only became an analysis of what is existing at the site in a three dimensional format but it also became a tool for master planning the site and subject project. The 12 plus acre site that is predominately black top parking lots with a few randomlyt placed abandoned buildings is full of opportunities possibilities for improvement and bringing life back to this dead site. The waterfront property embraces views towards the Newport Harbor, Newport Bridge and Naval Marina, providing a natural setting for serenity and peace.

Massing conceptually is a necessary to explore options beyond the existing rigid constraints of the buildling and site to find the natural flow and movement throughout the site and program, with a goal of integrating ideas within the envelope to create a whole healing environment for the land and the body.

Chapter Three

Conclusion

Chapter Three evolved into an exploration that has become the foundation for a solid and successful project. It is the groundwork that will aid in finding and solving the issues of this project. The typological studies gave insight on the many different types of health facilities that exist today and how their concepts and programs can differ drastically, while each have a new way of thinking about the integration of nature into the healing environment. A cross examination of the different type of facilities defined the program that would encompass necessary parts of each to achieve the goal and needs of the end user. The site analysis and massing study took the information from all previous sections and brought them together in a visual exercise analyzing density, mass and relationships between all entities.




156

Findings

- Concept Statement
- Plans
- Views
- Sections
- Details
- Models
- Summary

Chapter Four

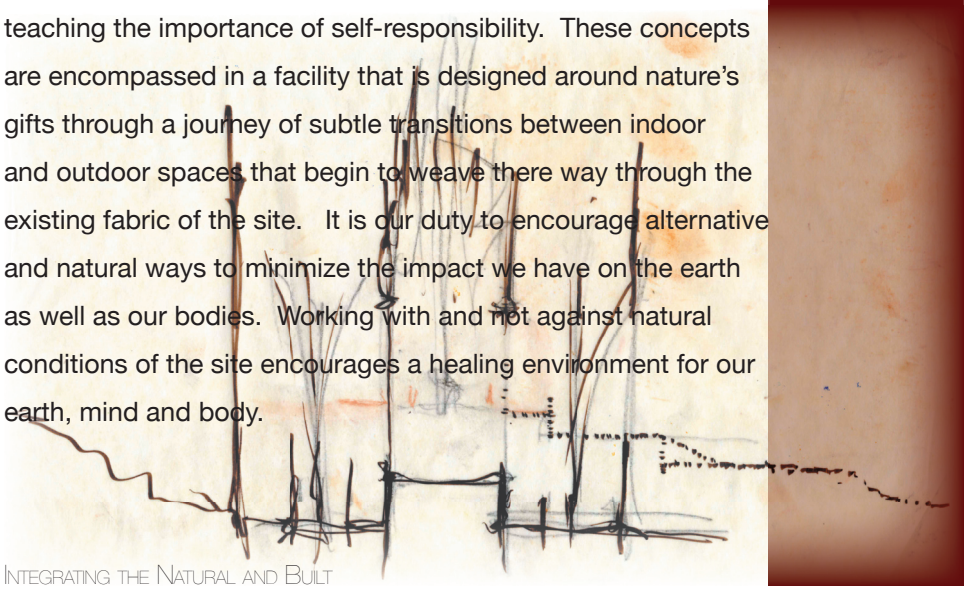
Design Conceptualization



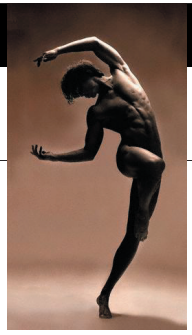
Concept Statement

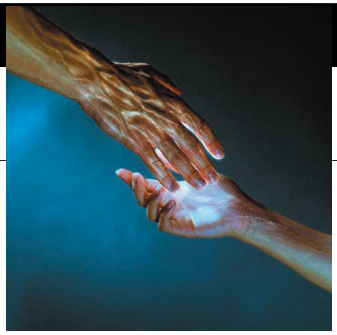
The Body Solutions Center as an extension and improvement to the Newport Naval Medical Center could provide the balance needed to encourage wellness, lifestyle changes, a preventative outlook, whole nutrition and personal responsibility for health and fitness. Building sustainable structures is like training the body for a lifetime of endurance and strength. Both are equally important in creating a healing environment to alleviate the painful didactic conditions of our misinformed society and maltreated environment.

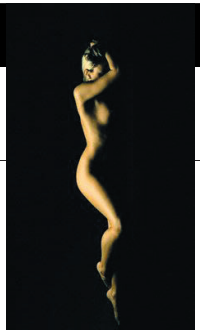
The complexity of the body can be treated with the simple concepts of heliotherapy, open-air treatment, and whole foods based on the individuals' blood type as well as teaching the importance of self-responsibility. These concepts are encompassed in a facility that is designed around nature's gifts through a journey of subtle transitions between indoor and outdoor spaces that begin to weave there way through the existing fabric of the site. It is our duty to encourage alternative and natural ways to minimize the impact we have on the earth as well as our bodies. Working with and not against natural conditions of the site encourages a healing environment for our earth, mind and body.

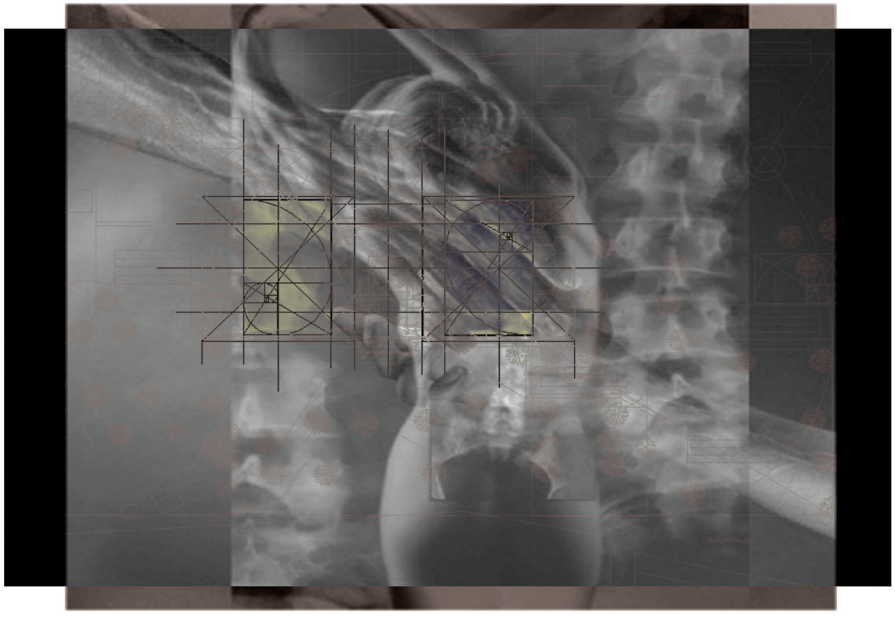


Integrating the Natural and Built









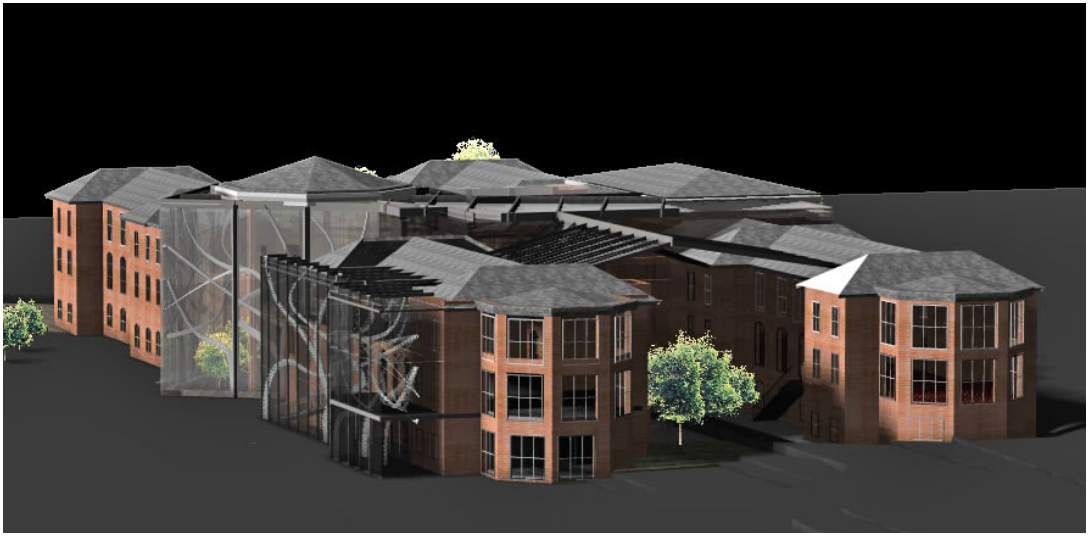
Beauty and simplicity of the Natural Form inspires.

Structure within form allows fluid movement

Findings
- **Concept Statement**
- **Views**
- **Plans**
- **Sections/Elevations**
- **Details**
- **Models**
- **Summary**

Views



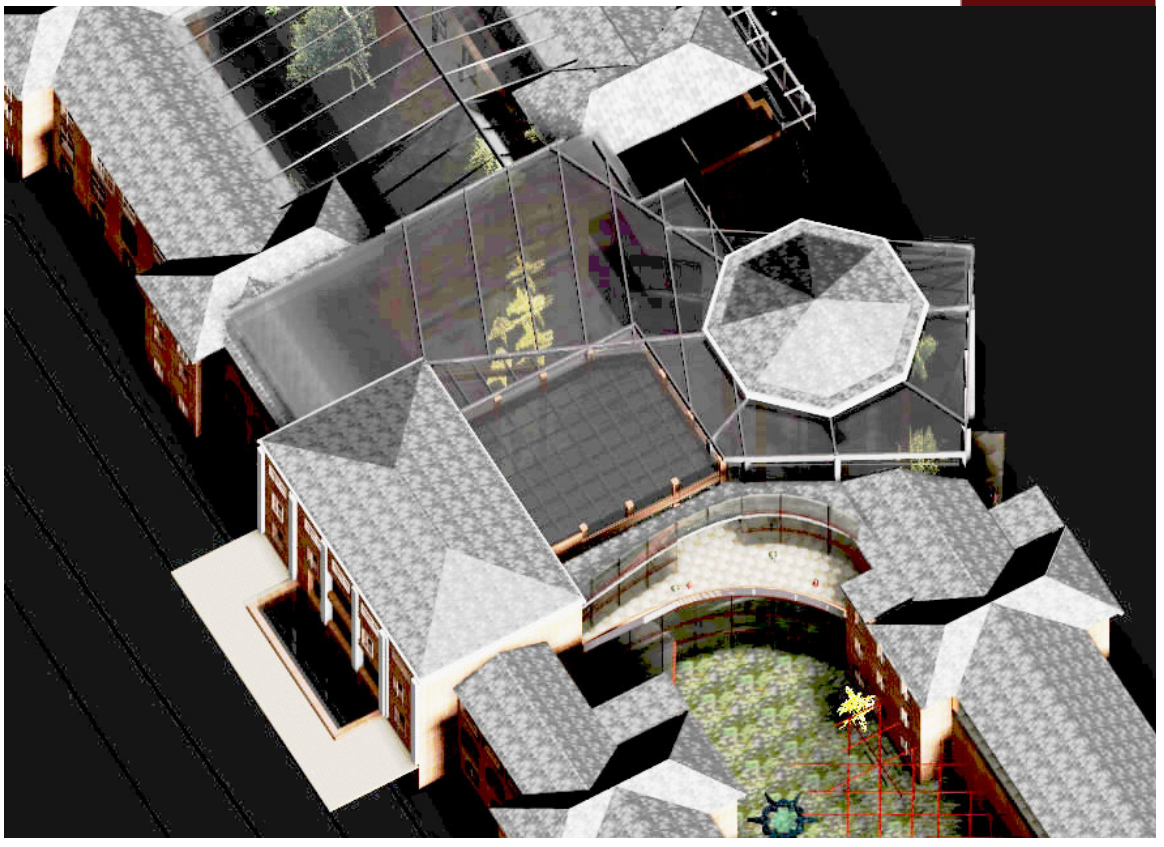


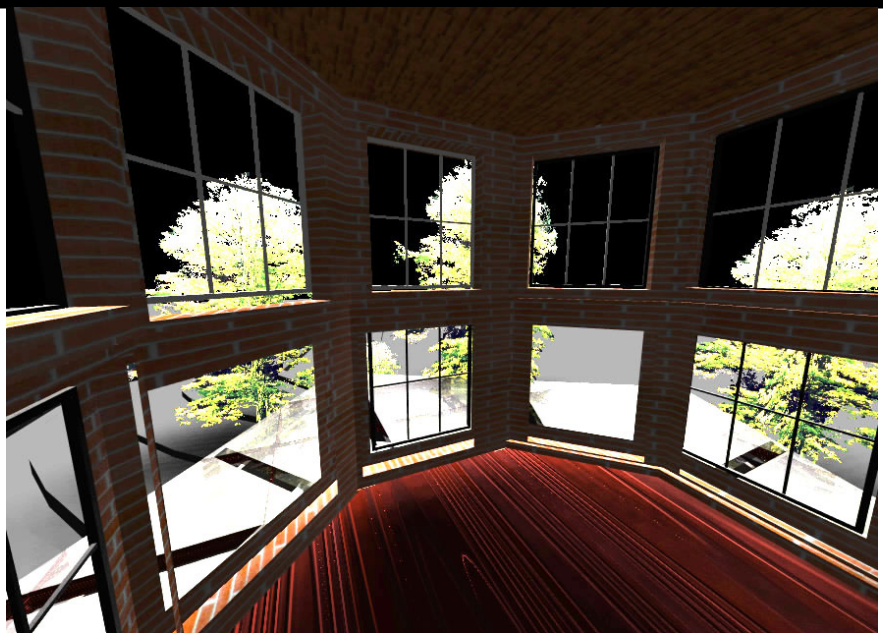
New Glass Circulation Structuree wraps new east facing facade

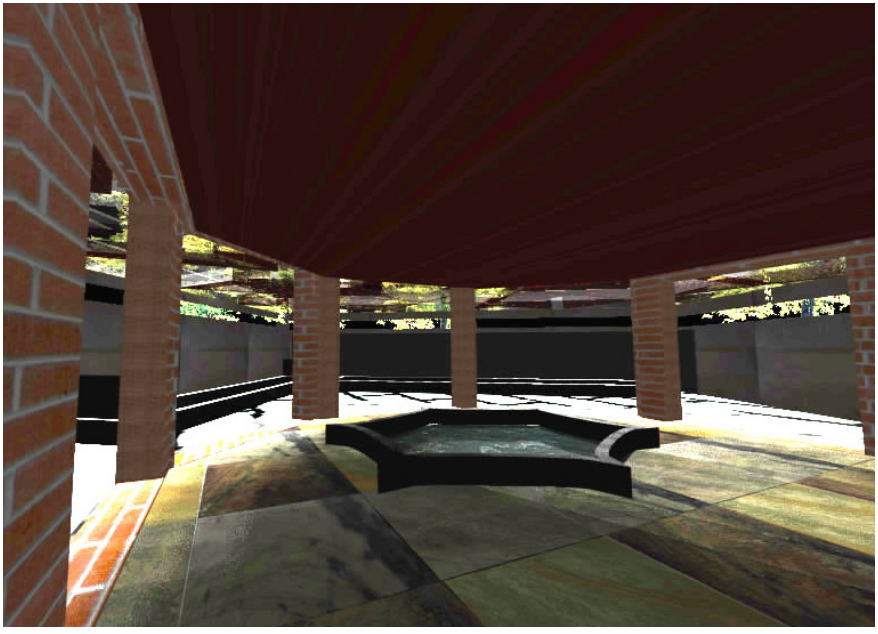


East Entry Facade

Integration of New Roof Structure with Existing Hip Gable roofs



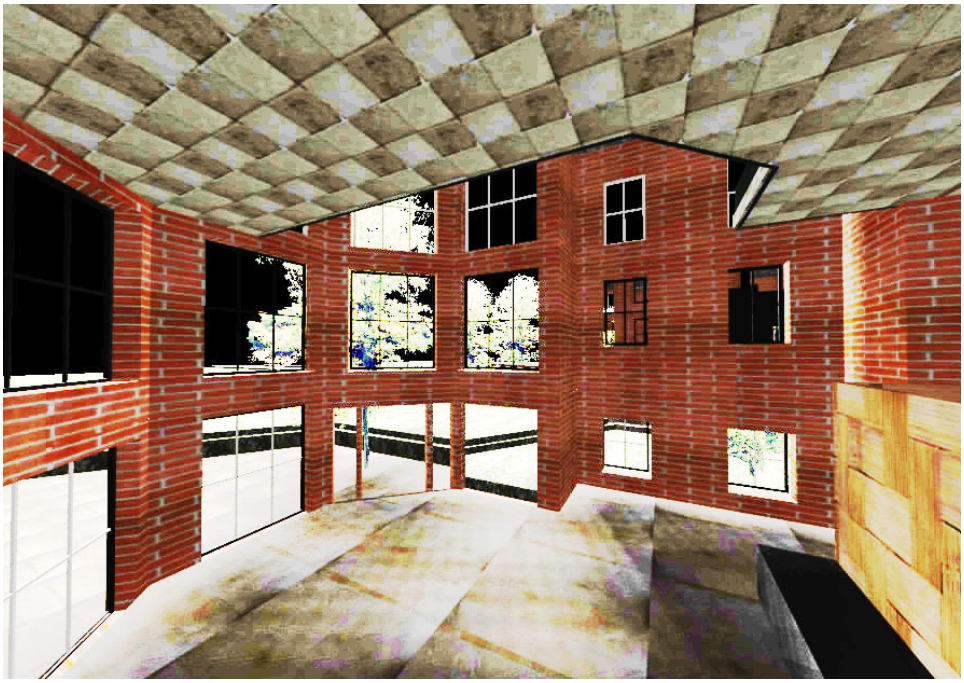




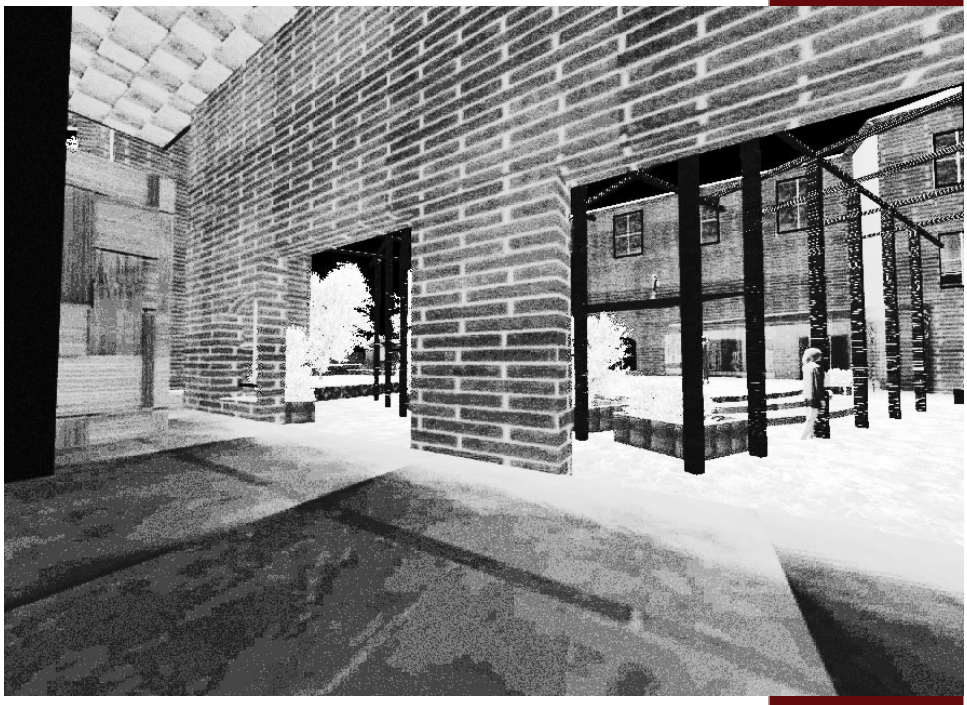
Interior of Womens Baths facing south. The existing windows were removed and walls opened in solarium to new bath area under a colored glass ceiling that acts as a deck above for the pilates/yoga studio. The colored glass follows the path of the sun allowing light to pass throughout the day to create baths with color therapy treatment



South Courtyard sketch shows womens bath house on left, pilates/yoga studio above, herb gardens leading to classroom kitchen on right and atrium glass wall and viewing balconies.

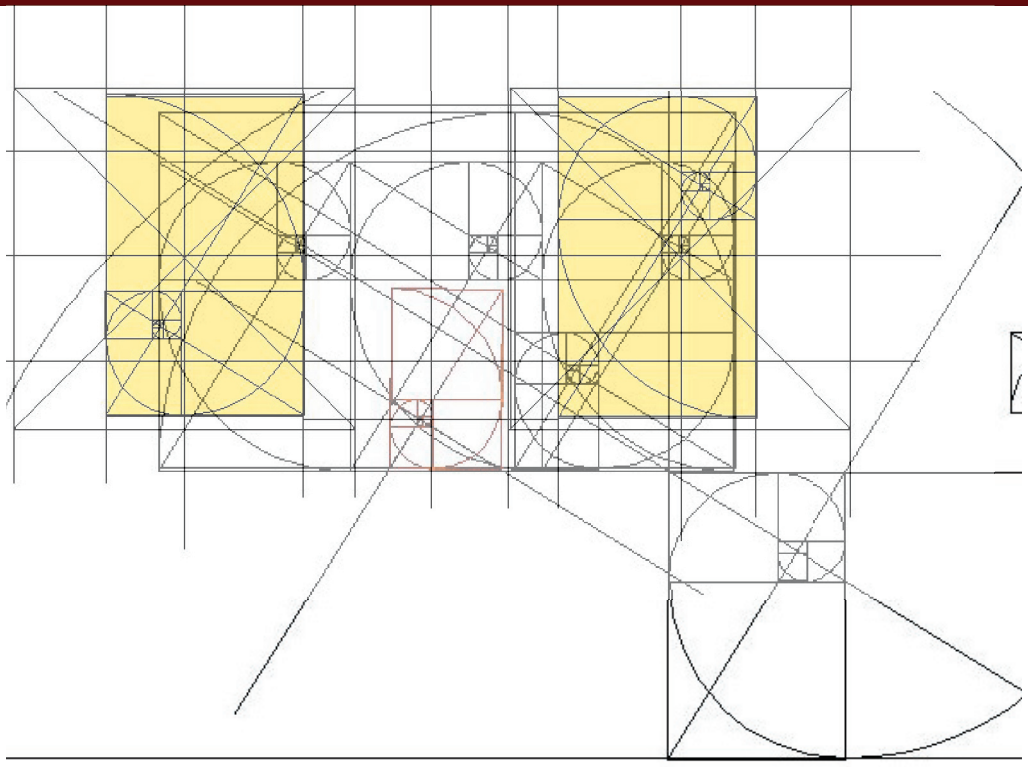


Interior of Dining Hall, three story solarium with mezanine above as staff lunch room. Space opens up to the southwest terrace and gardens.



Interior of Kitchen Classroom showing openings where large garage overhead doors will be installed to open directly to herb gardens on terrace

FINDINGS
CONCEPT STATEMENT
VIEWS
PLANS
SECTIONS/ELEVATIONS
DETAILS
MODELS
SUMMARY



Collisiong of Forms

The site proportions and regularity of the existing ridlike structure creates movement of flow in defining space. A system of parts weaved back together to create the balance.



A strong Foundation

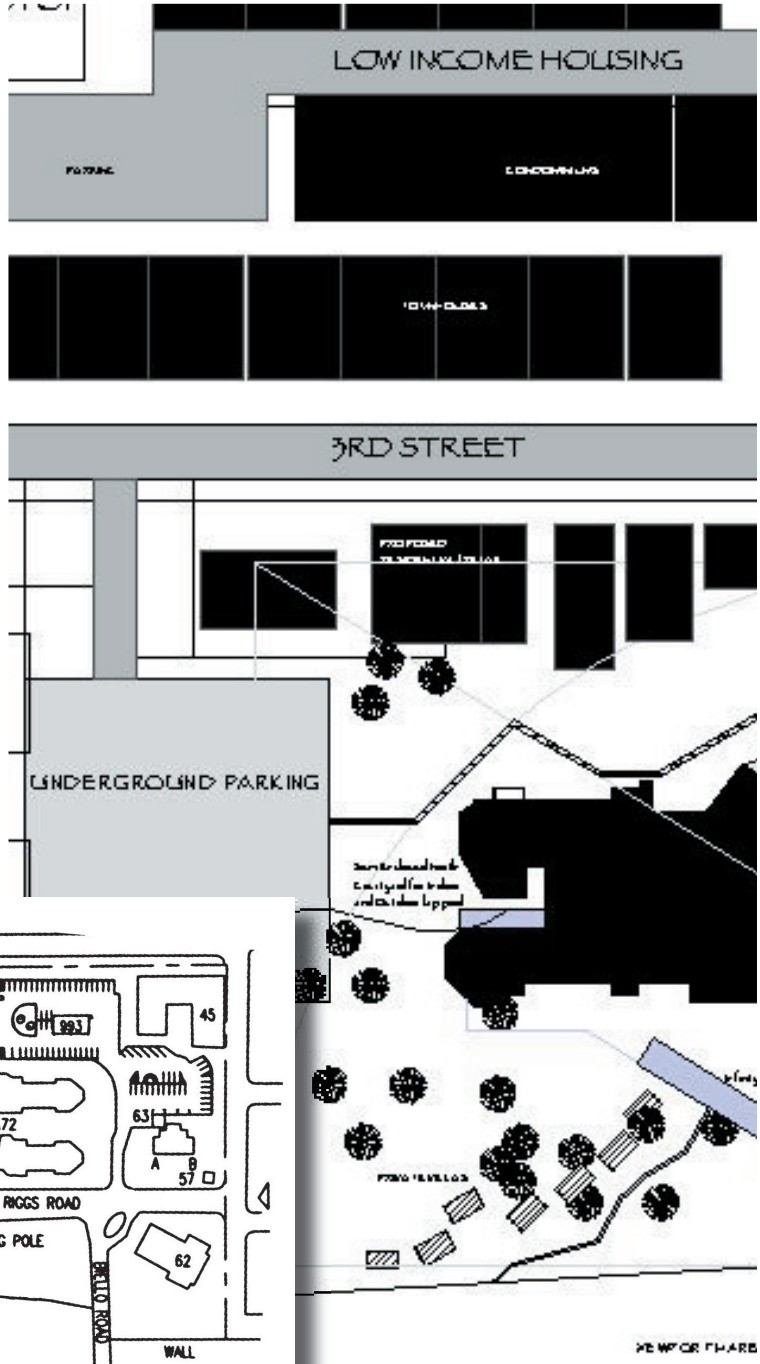
"Detailed planning is required to build a strong foundation before a structure is built. That said, we neglect to take the same time, energy, resources, and planning to create a strong foundation on which to build health--no wonder overall health is deteriorating." Gloria Gilbere, N.D., D.A.Hom, Ph.D.

SITE PLAN

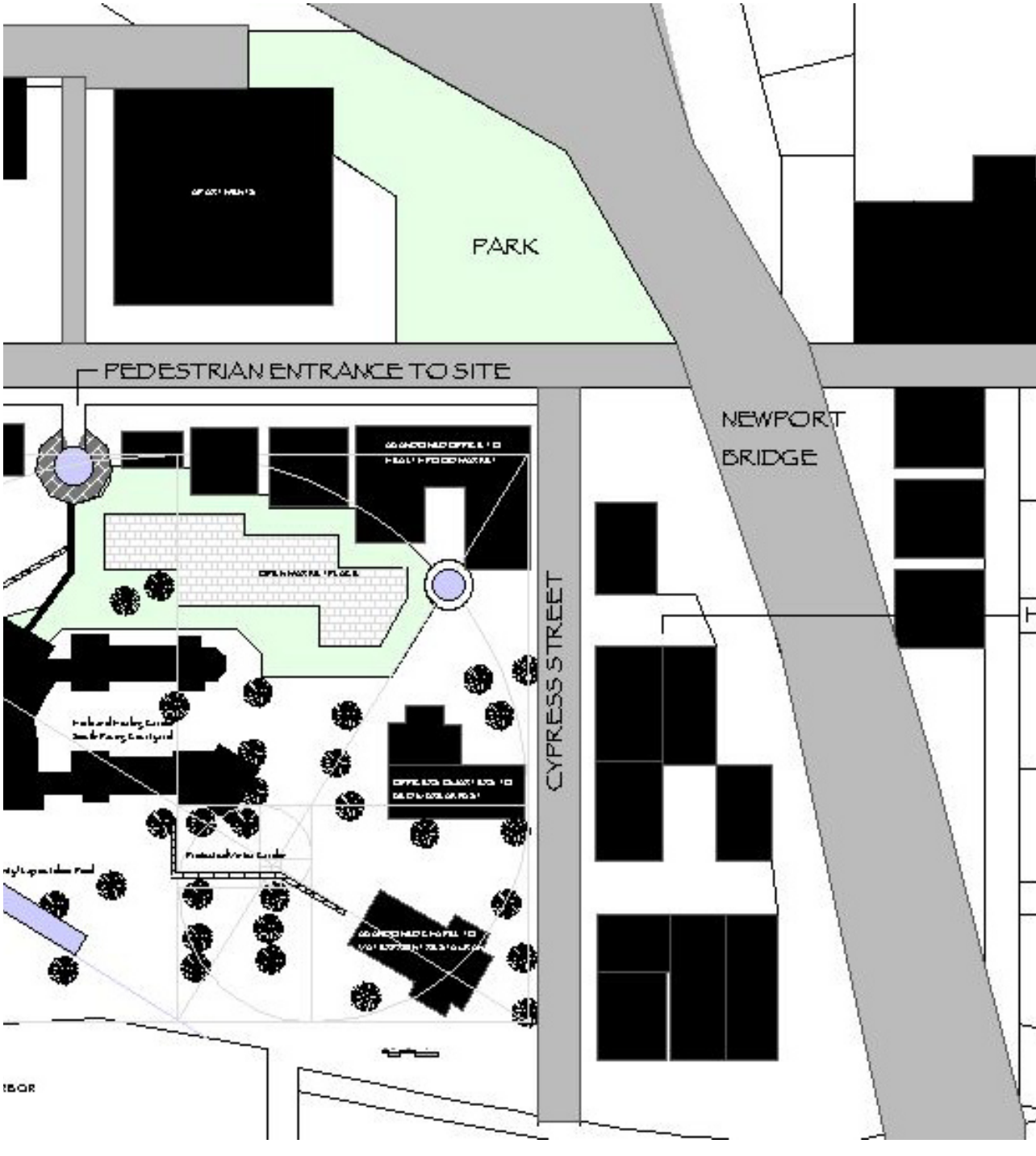
1. The Site Plan shows elements of master planning using the existing buildings for new functions and creating a street scene along 3rd Street that will open to the main entrance of the Body Solutions Health and Fitness Center.

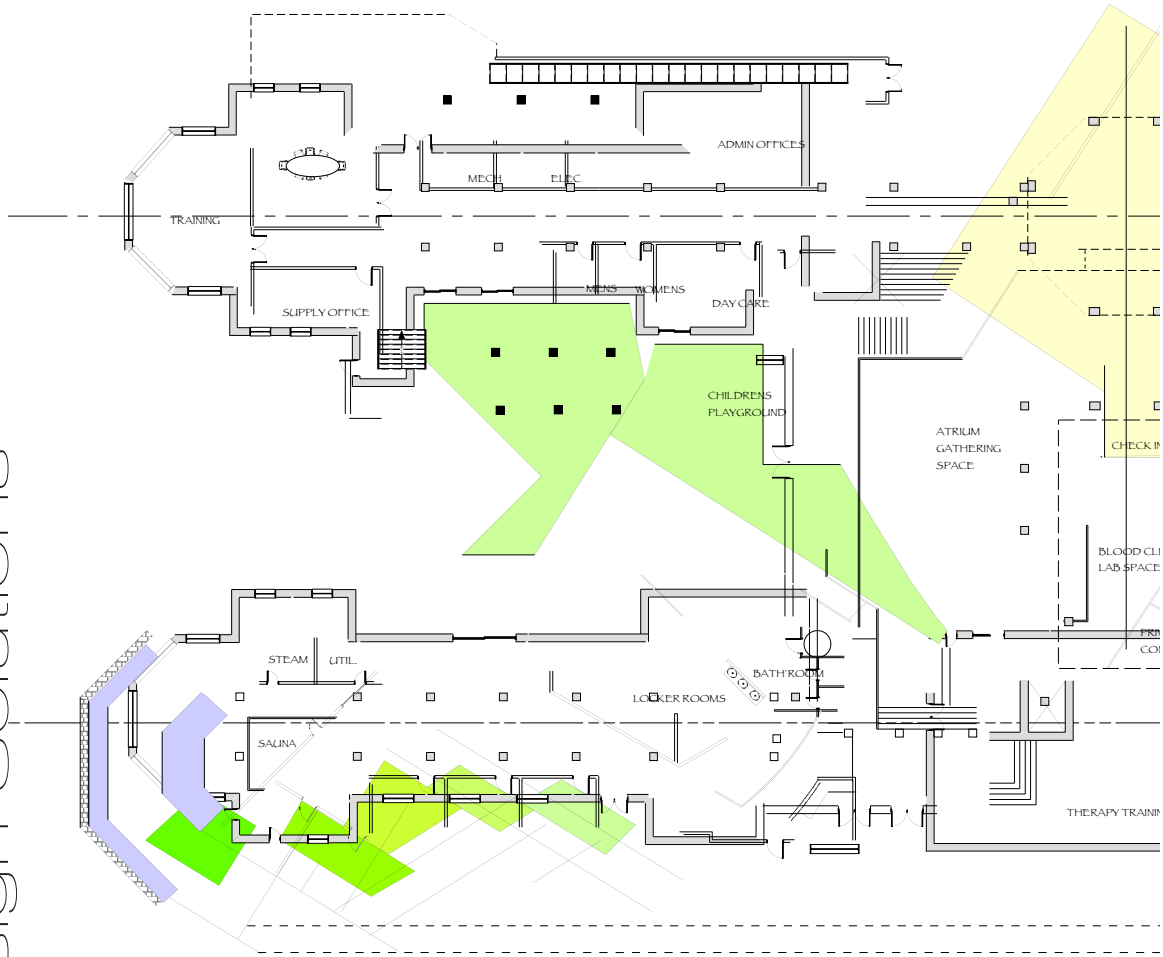
2. Proposed New Construction for Mixed use retail and residential loft/apartments along 3rd Street.

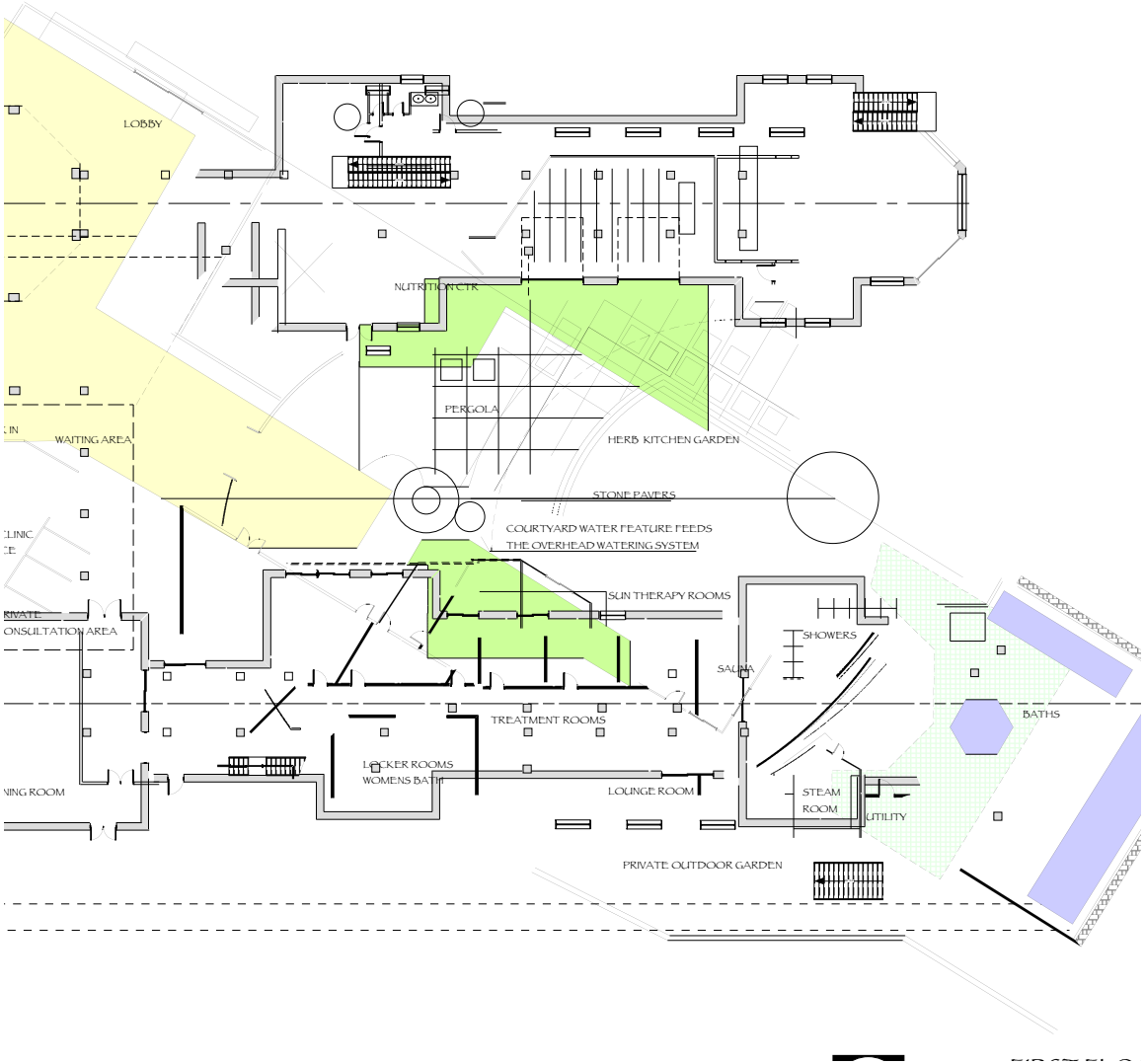
3. Existing buildings proposed for a new Health Food Market and a waterfron restaurant, previously the old Naval

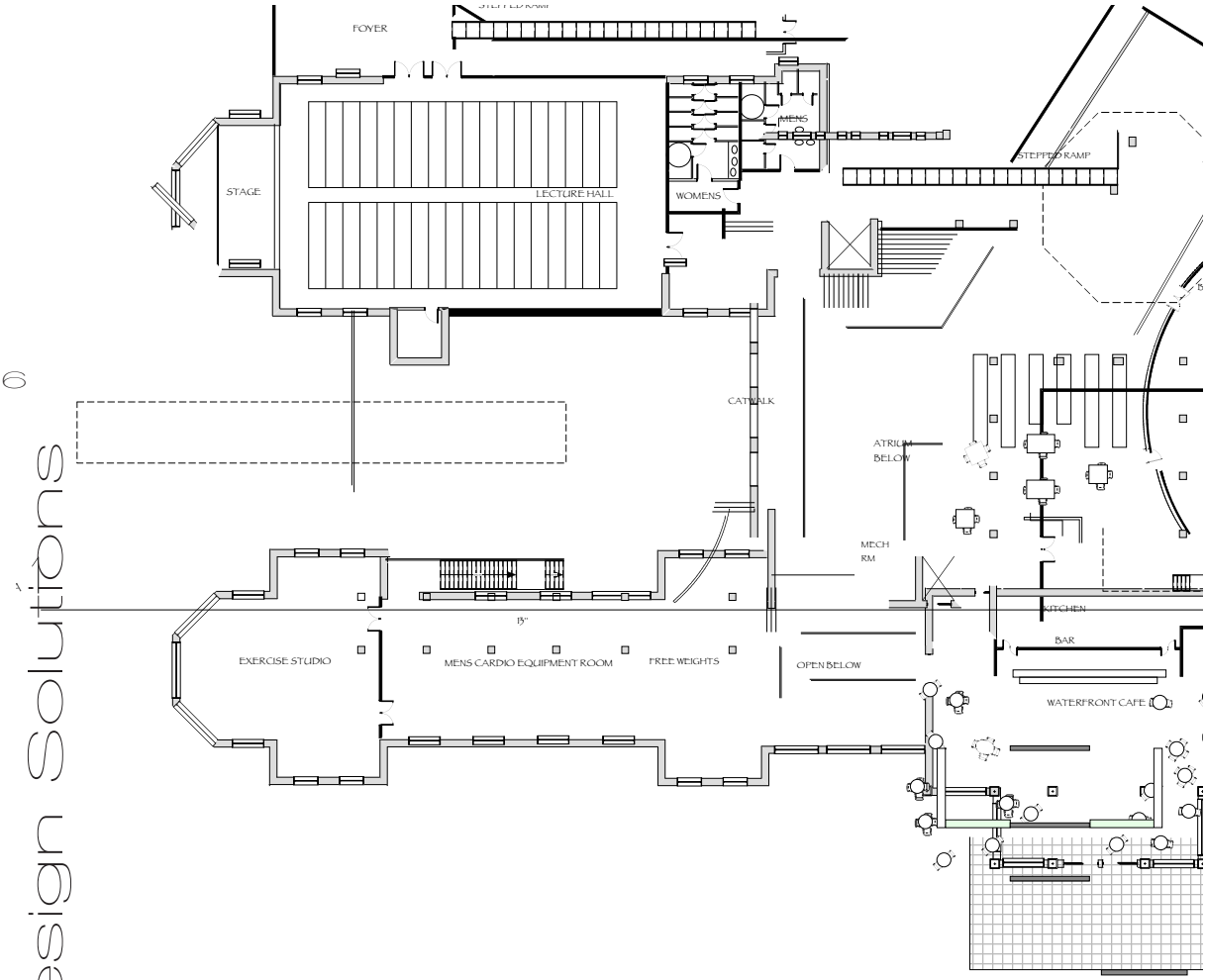


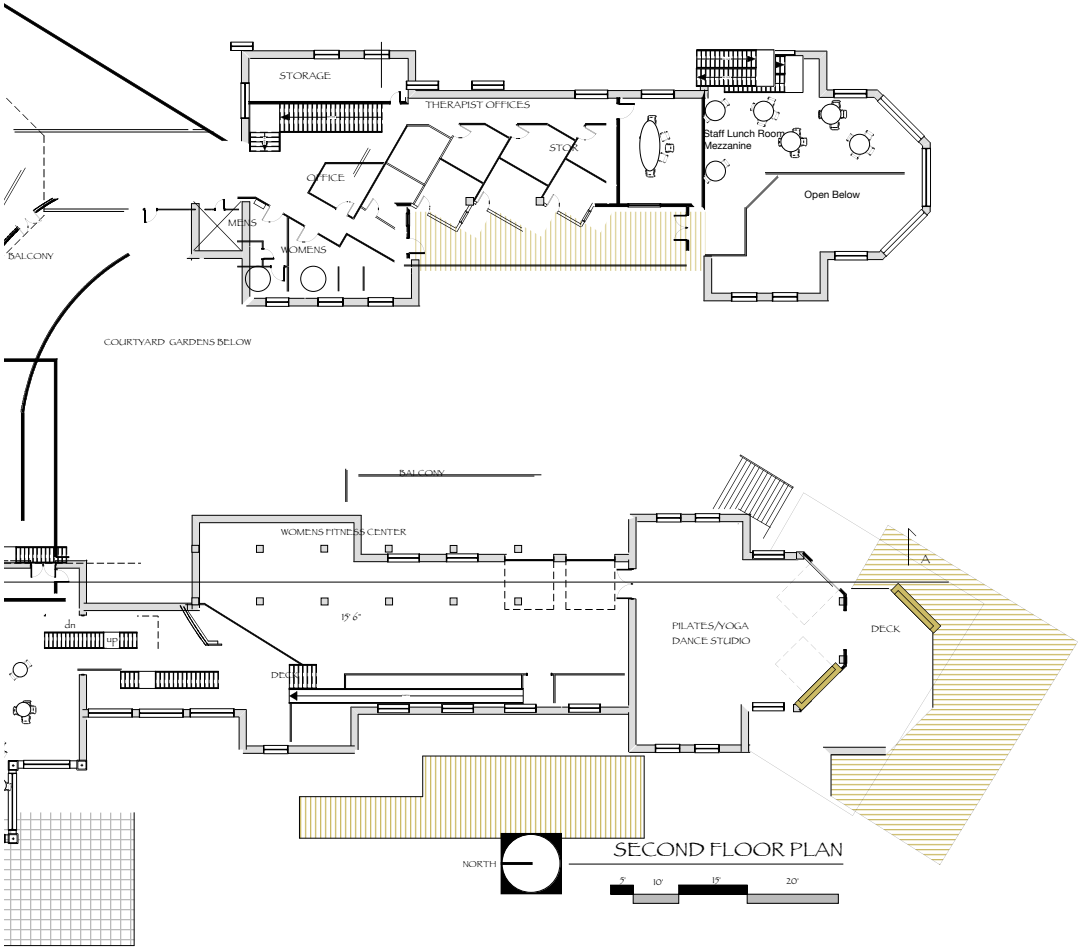
Existing Site

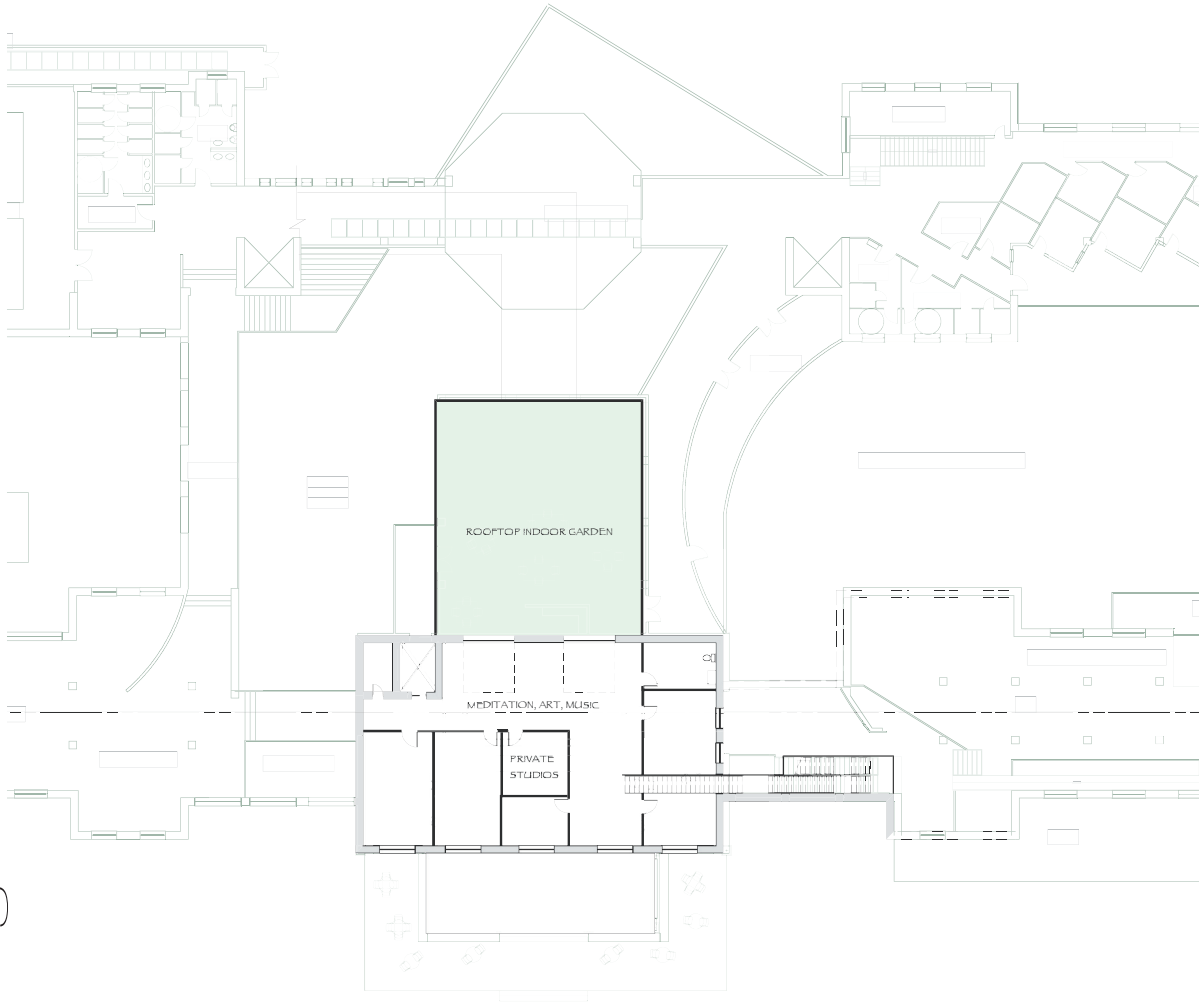

PARK
PEDESTRIAN ENTRANCE TO SITE
NEWPORT
BRIDGE
CYPRESS STREET


ADMIN OFFICES
MECH
ELEC
TRAINING
MENS
WOMENS
DAY CARE
SUPPLY OFFICE
CHILDRENS
PLAYGROUND
ATRIUM
GATHERING
SPACE
STEAM
UTIL.
BATHROOM
LOCKER ROOMS
SAUNA


LOBBY
NUTRITION CTR
PERGOLA
HERB KITCHEN GARDEN
WAITING AREA
STONE PAVERS
COURTYARD WATER FEATURE FEEDS
THE OVERHEAD WATERING SYSTEM
SUN THERAPY ROOMS
SHOWERS
SAUNA
TREATMENT ROOMS
BATHS
LOCKER ROOMS
WOMENS BATH
LOUNGE ROOM
STEAM
ROOM
PRIVATE OUTDOOR GARDEN


FOYER
STAGE
LECTURE HALL
MENS
WOMENS
STEPPED RAMP
CATWALK
ATRIUM BELOW
MECH RM
KITCHEN
BAR
WATERFRONT CAFE
EXERCISE STUDIO
MENS CARDIO EQUIPMENT ROOM
FREE WEIGHTS
OPEN BELOW


STORAGE
THERAPIST OFFICES
STOR
OFFICE
MENS
WOMENS
BALCONY
Staff Lunch Room
Mezzanine
Open Below
COURTYARD GARDENS BELOW
BALCONY
WOMENS FITNESS CENTER
dn
VIP
15' 6"
DECK
PILATES/YOGA
DANCE STUDIO
DECK
NORTH
SECOND FLOOR PLAN
5'
10'
15'
20'



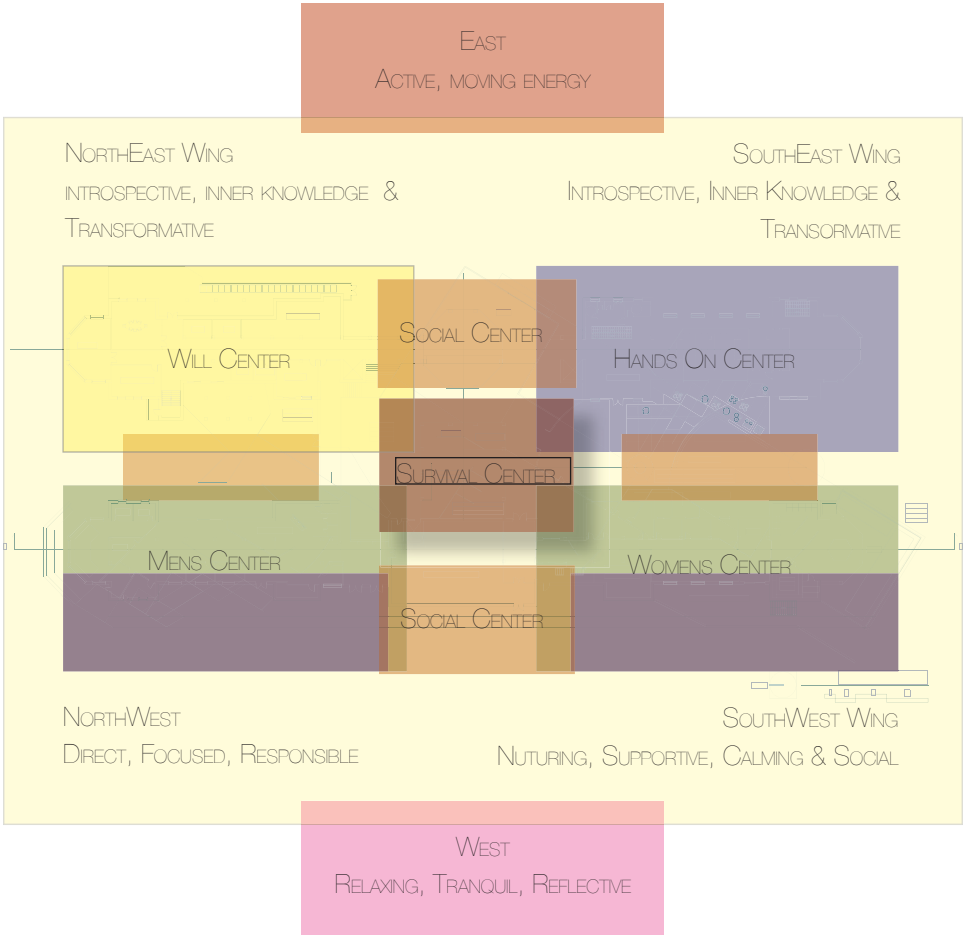
NORTH

THIRD FLOOR PLAN

5' 10' 15' 20'

orientation of function

Using principles of Feng Shui orientation
along with color therapy defines
function of space.

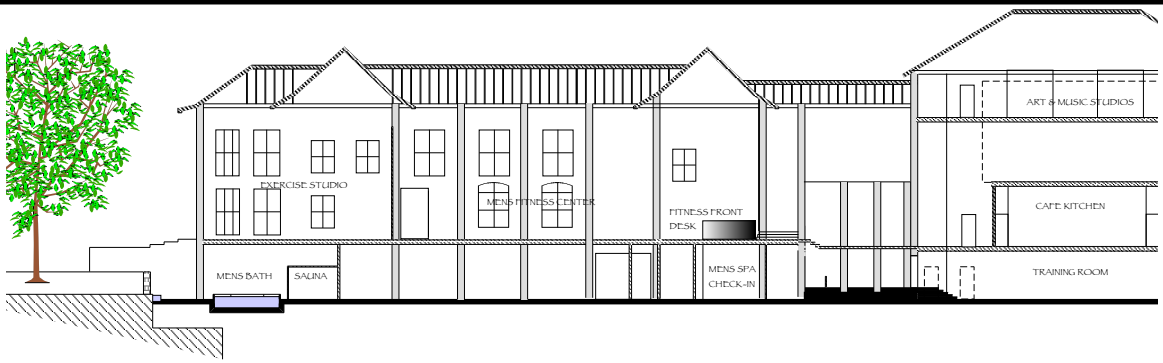


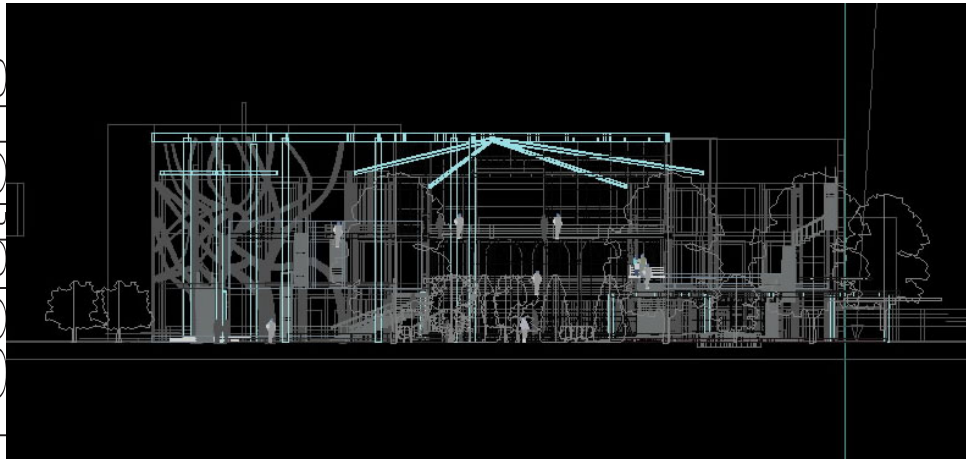
WEST
SUNSET VIEWS
OPEN
CAFE
KITCHEN
CLINIC
TO VILLAS
MEDITATION
TO ATRIUM

Findings

- **Concept Statement**
- **Views**
- **Plans**
- **Sections/Elevations**
- **Details**
- **Models**
- **Summary**

Sections Elev

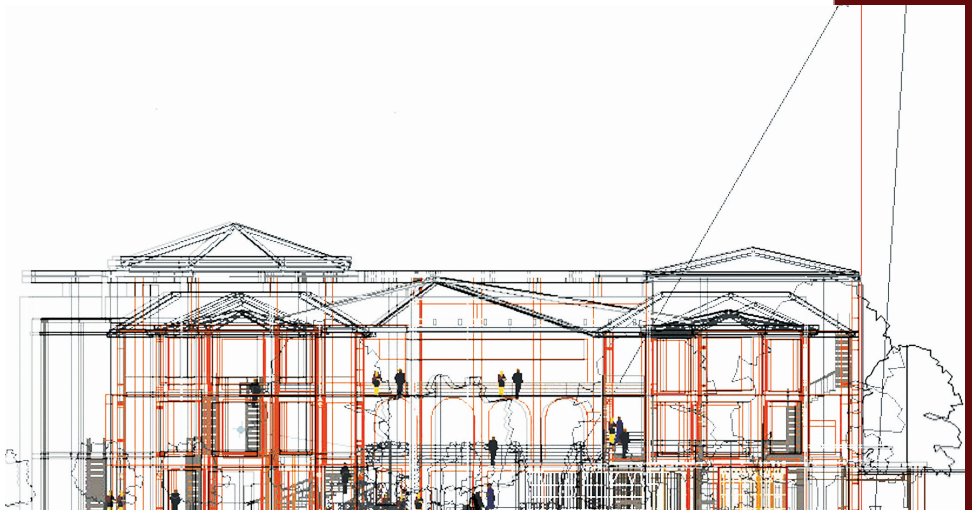

EXERCISE STUDIO
MENS FITNESS CENTER
FITNESS FRONT DESK
ART & MUSIC STUDIOS
CAFE KITCHEN
MENS BATH
SAUNA
MENS SPA CHECK-IN
TRAINING ROOM



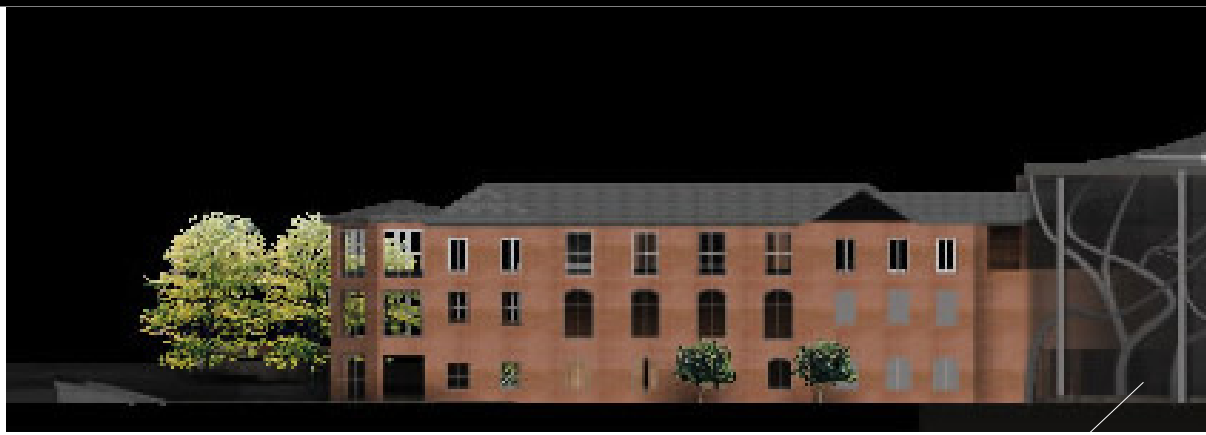


SECTION A-A

NOR OUTH WINGS 2 & 3



North Section



East Elevation and New Entry

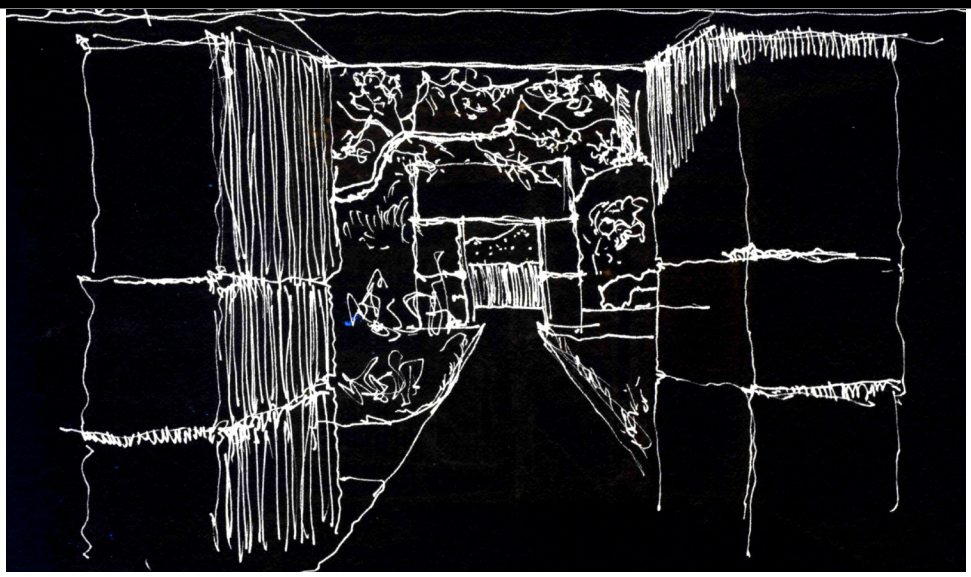


The existing buidling above shows the 5th wing addition adjacent to 3rd street, facing east. This wing will be demolished to become the new entryway into the Market place and Body Solutions Center.



The structure of existing rotonda (right) will remain in place to allow for a central circulation space. While the walls will be opened up the new structure of the lobby and atrium will encompass and preserve the original form





CONCEPT STATEMENT
PLANS
VIEWS
SECTIONS
DETAILS
MODELS
SUMMARY

DETAILS









The North facing courtyard, (top left) was used as an old service road to the core of the building. The enclosed arcade serves as a passage way between wings on the ground floor and 1st floor and storage space on the 2nd floor. Opening up the arcade would allow natural north light to penetrate into the core. It could also create an interior gardenscape left open to explore and move from indoors to outdoors in order to reach the other wings or the possibility of enclosing the space to create an atrium environment with internal healing gardens.

The South Facing courtyard (bottom left) has a naturally protected setting for healing gardens and heliotherapy morning treatment pods year round

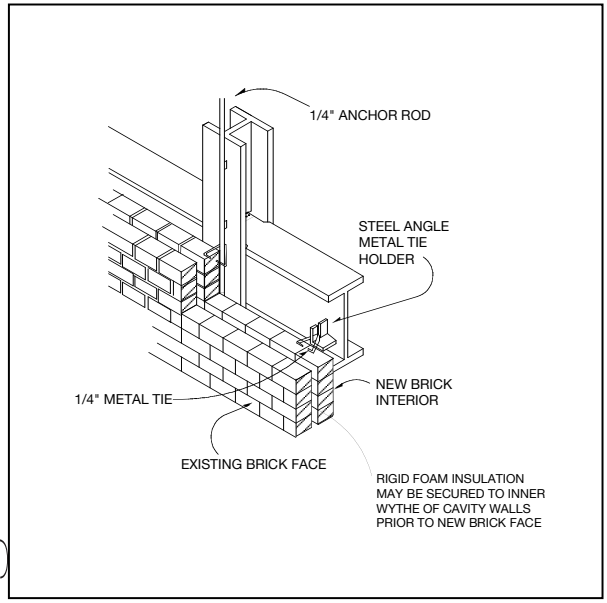
The existing entrance and facade of the buildings is facing due west toward the waterfront. The classical facade and regularity of form will be maintained true to its form with minor alterations opening up the small vestibule area to an inviting and open cafe area. The access will no longer be defined by the

automobile but rather the pedestrian.

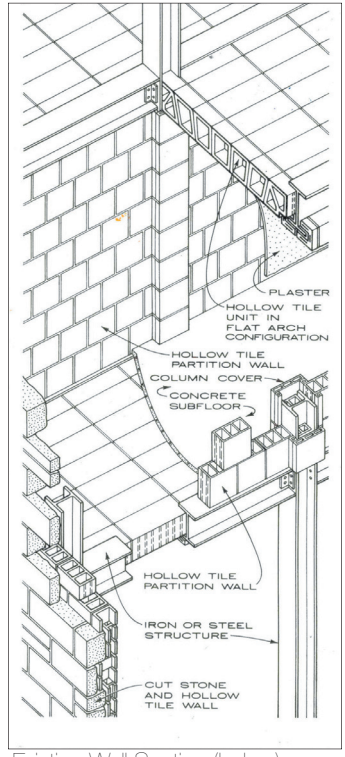
Enter Waterfront Cafe through a glass storefront within classic column facade.

The third floor clearstory provides natural daylight into meditation and art studio spaces with access to rooftop garden overlooking south courtyard.



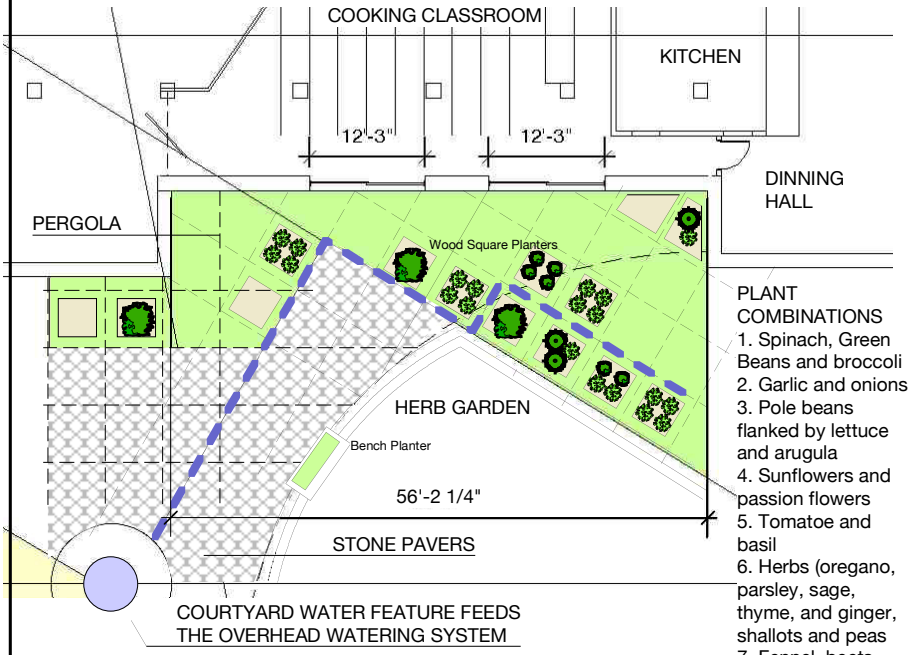


1 **TYPICAL WALL DETAIL**
NO SCALE



Existing Wall Section (below)
Historic Structural System Late 19th and early 20th Centuries Fireproof Construction
Source: Architectural Graphic Standards.

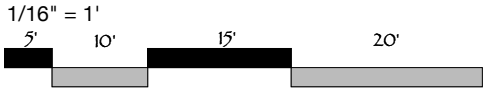
A VEGETABLE GARDEN INCLUDING SUCCESSIVE PLANTINGS OF FLOWERS
AND LATE-SEASON VEGETABLES
THAT FILL IN THE GAPS LEFT BY HARVESTED PLANTS.



PLANT COMBINATIONS
1. Spinach, Green Beans and broccoli
2. Garlic and onions
3. Pole beans flanked by lettuce and arugula
4. Sunflowers and passion flowers
5. Tomatoe and basil
6. Herbs (oregano, parsley, sage, thyme, and ginger, shallots and peas
7. Fennel, beets, and swiss chard
8. Lavender

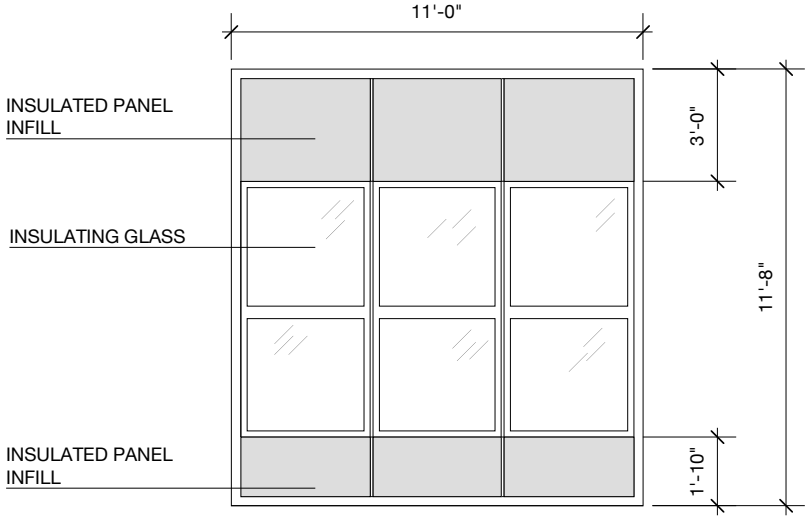
2 HERB GARDEN DETAIL

1/16" = 1'

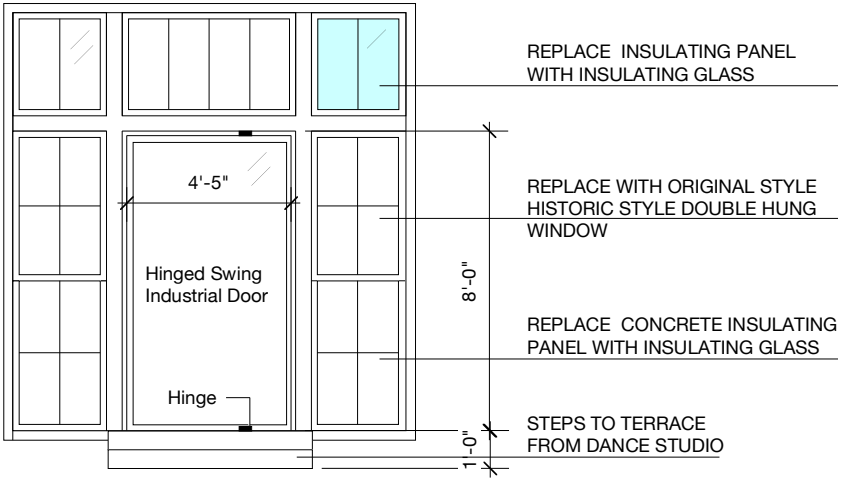


Notes:

Use of bench planters, 96" x 48" x 36" high at level changes in courtyard. Materials to be a combination of concrete and collected fieldstone.
Wood square planters 48" x 24" will be used for vegetables and herbs.



EXISTING SOLARIUM WINDOWS

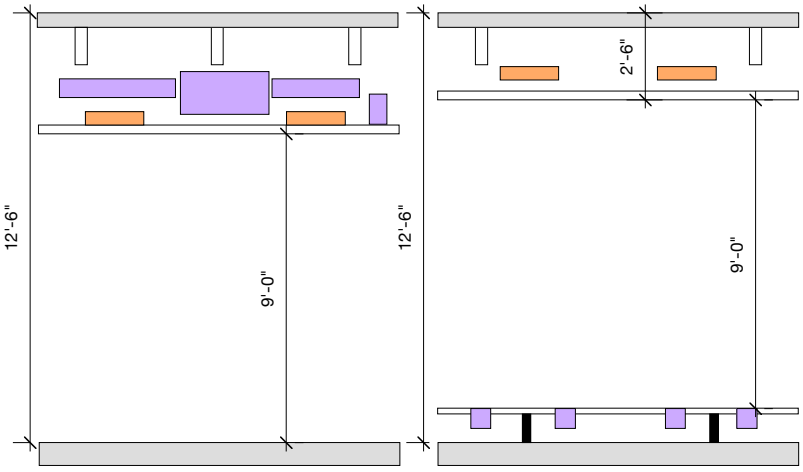


NEW SOLARIUM WINDOWS/DOOR

3 SOLARIUM WINDOW DETAIL WING 3

1/4" = 1' (1:48)

Dimensional Comparisons



Conventional Floor with
Overhead Air, Existing Condition

Access Floor with Underfloor Air

7 HVAC VS. VAV SYSTEM DETAIL

1/4" =1'

Notes:
Underfloor system advantages:

Ability to work in conjunction with operable windows since air volumes and pressures are delivered at low rates, the use of open windows for natural ventilation and open air treatment will not undermine the engineering of the system.

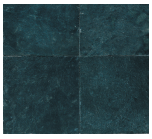
Allows for easy under floor locating and access of communications and electircal wiring.
Improves the ability to rapidly reconfigure the space for changing needs

Energy savings, occupant comfort and flexibility offset the additional cost of approximately $1.75 to $2.00 per sqft.





EXISTING BUILDING BRICK EXTERIOR



SLATE SHINGLES, EXISTING. RE-USE FROM WING 5 AND CORE DEMO IN GARDENS AND HARDSCAPE AREAS



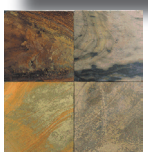
BAMBOO FOR WALLS AND FLOORS

GLUE-LAMINATED BEAMS AND COLUMNS TO BE USED ON NEW STRUCTURE TYING INTO BRICK BEARING WALL STRUCTURE.

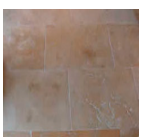


STAINLESS STEEL, BRICK SHINNY METAL 2 1/2" X 3/4" MOSAICS TO BE USED IN RESTROOMS AND KITCHEN





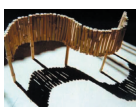
VERMONT SLATE 1/2" THICK TO BE USED IN SPA SPA COMMON SPACES



NATURAL TRAVERTINE STONE 18" X 18" TO BE USED IN PUBLIC SPACES

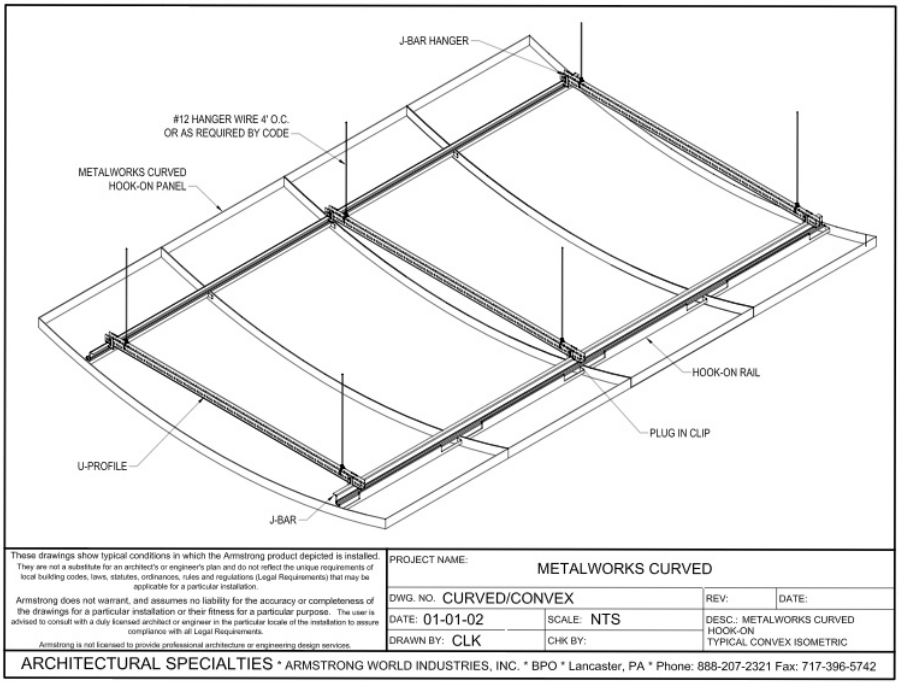


LOCAL STONE PAVERS AND FIELD STONE TO BE USED ON PATHWAYS AND RETAINING WALLS THROUGHOUT COURTYARDS AND GARDENS.



BAMBOO PRIVACY FENCING IN GARDENS

Materials Pallette



These drawings show typical conditions in which the Armstrong product depicted is installed. They are not a substitute for an architect's or engineer's plan and do not reflect the unique requirements of local building codes, laws, statutes, ordinances, rules and regulations (Legal Requirements) that may be applicable for a particular installation.

Armstrong does not warrant, and assumes no liability for the accuracy or completeness of the drawings for a particular installation or their fitness for a particular purpose. The user is advised to consult with a duly licensed architect or engineer in the particular locale of the installation to assure compliance with all Legal Requirements.

Armstrong is not licensed to provide professional architecture or engineering design services.

PROJECT NAME: METALWORKS CURVED			
DWG. NO. CURVED/CONVEX		REV:	DATE:
DATE: 01-01-02	SCALE: NTS	DESC.: METALWORKS CURVED HOOK-ON TYPICAL CONVEX ISOMETRIC	
DRAWN BY: CLK	CHK BY:		

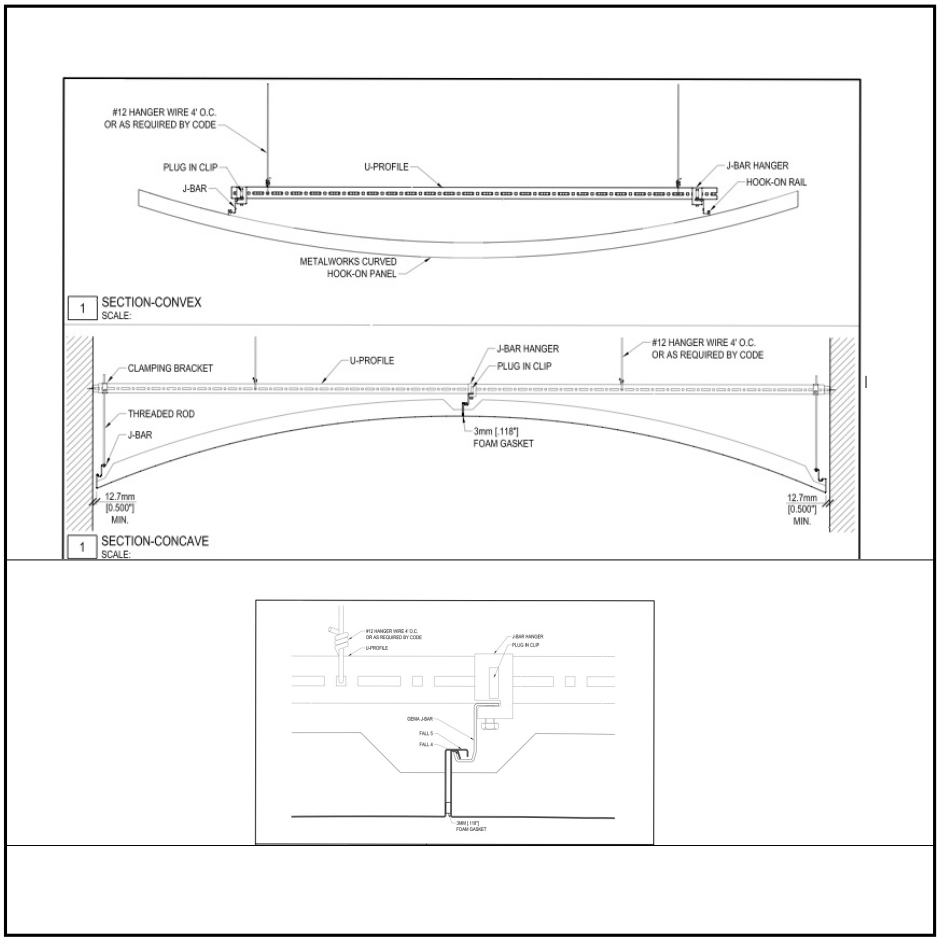
ARCHITECTURAL SPECIALTIES * ARMSTRONG WORLD INDUSTRIES, INC. * BPO * Lancaster, PA * Phone: 888-207-2321 Fax: 717-396-5742

8 CURVED DROP CEILING PANELS

NO SCALE

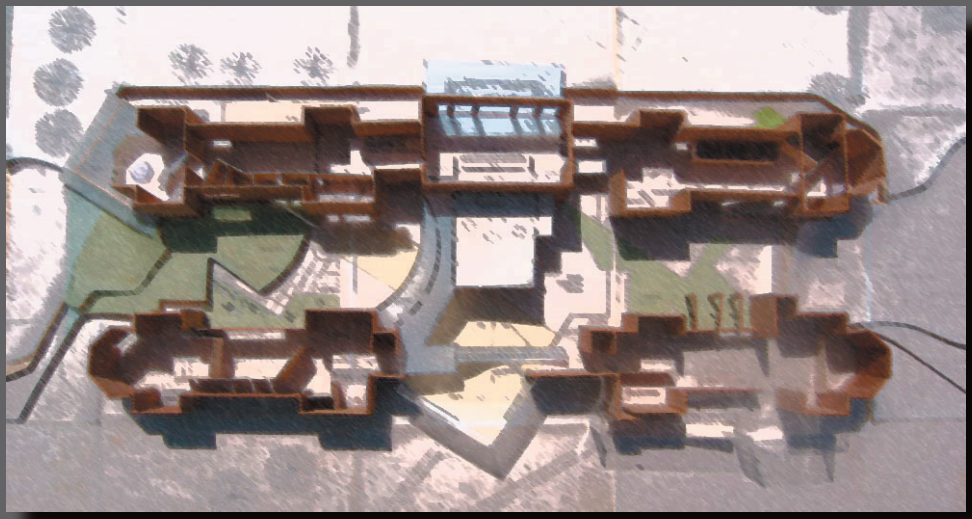
Notes:

Wave-like custom designed metalworks panels will be used in large public spaces such as the fitness rooms, lecture hall, kitchen classroom and cafe.

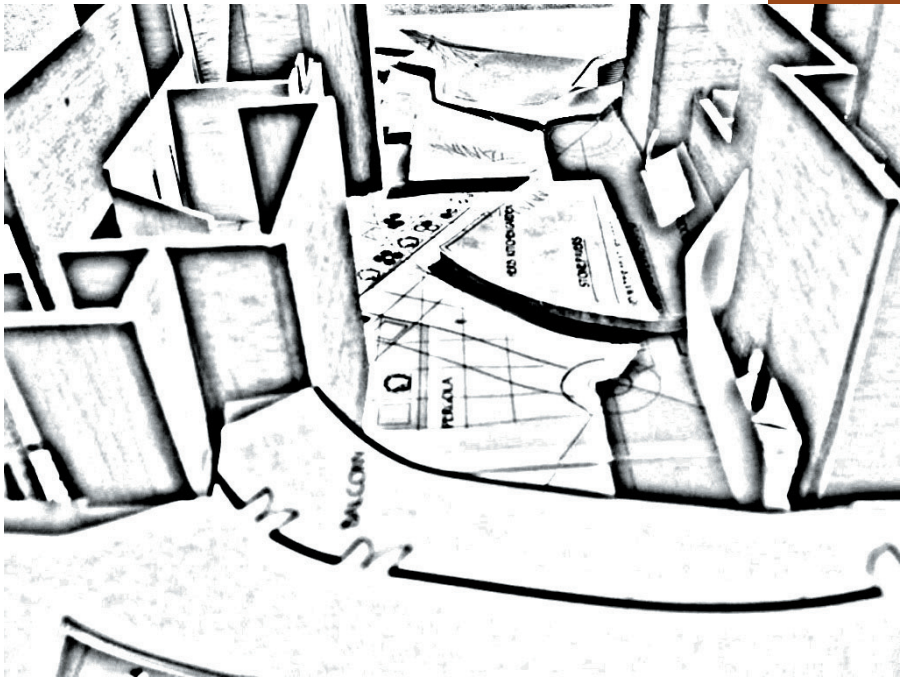


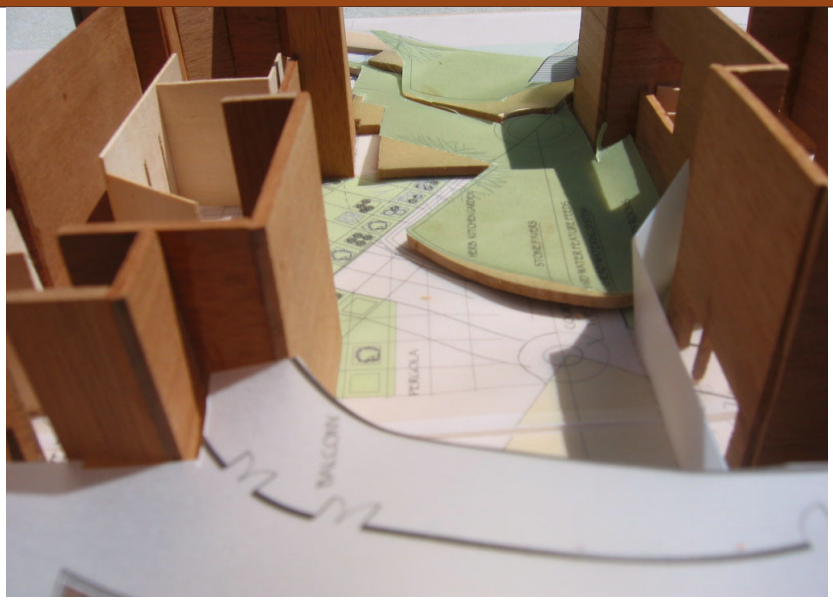
9 CURVED DROP CEILING SECTION & JOINT CONNECTION

NO SCALE



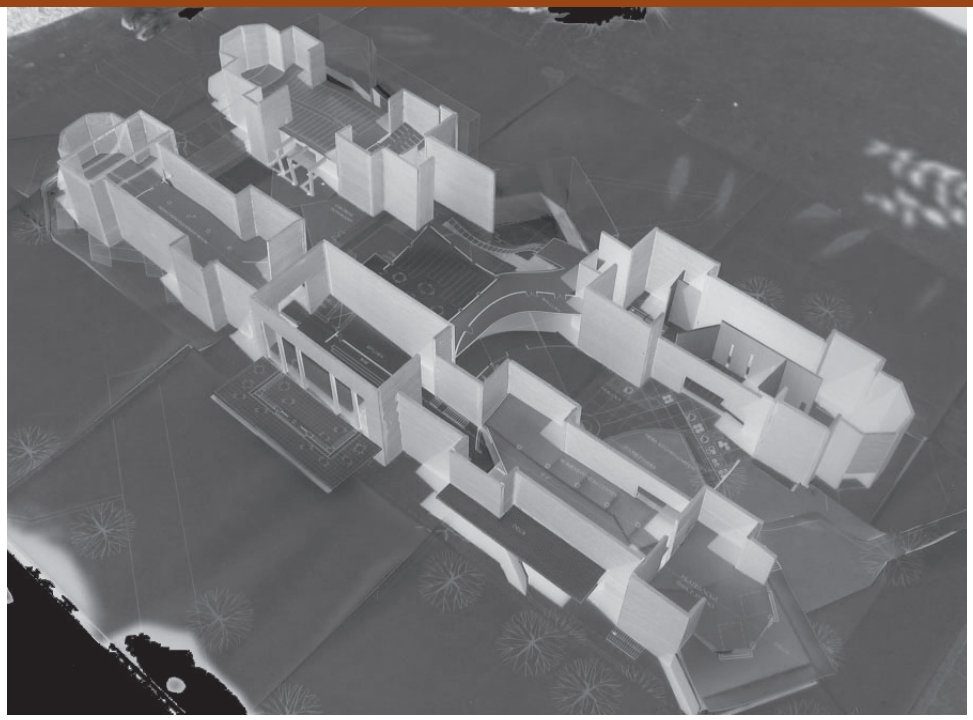
Findings
- **Concept Statement**
- **Plans**
- **Views**
- **Sections**
- **Details**
- **Models**
- **Summary**

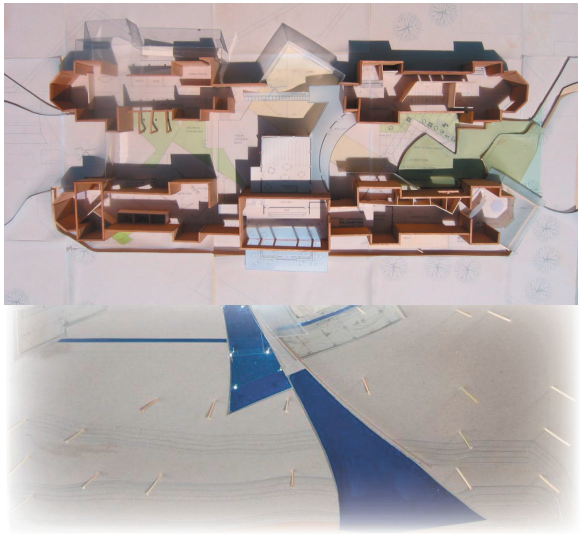




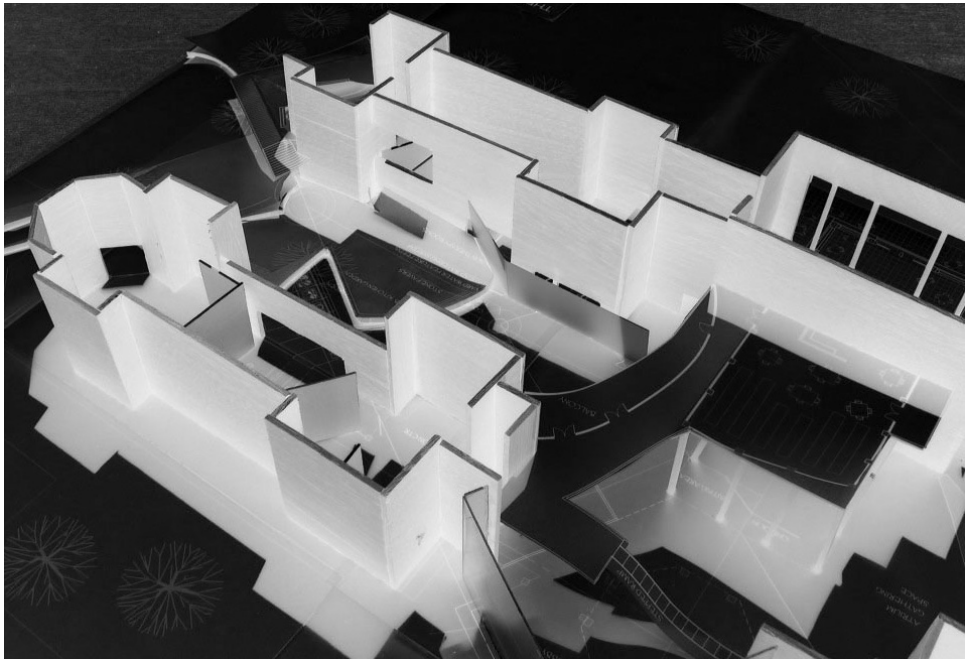
(Above) Veiw from Library Balcony into South Courtyard. (Right) View into first floor treatment rooms

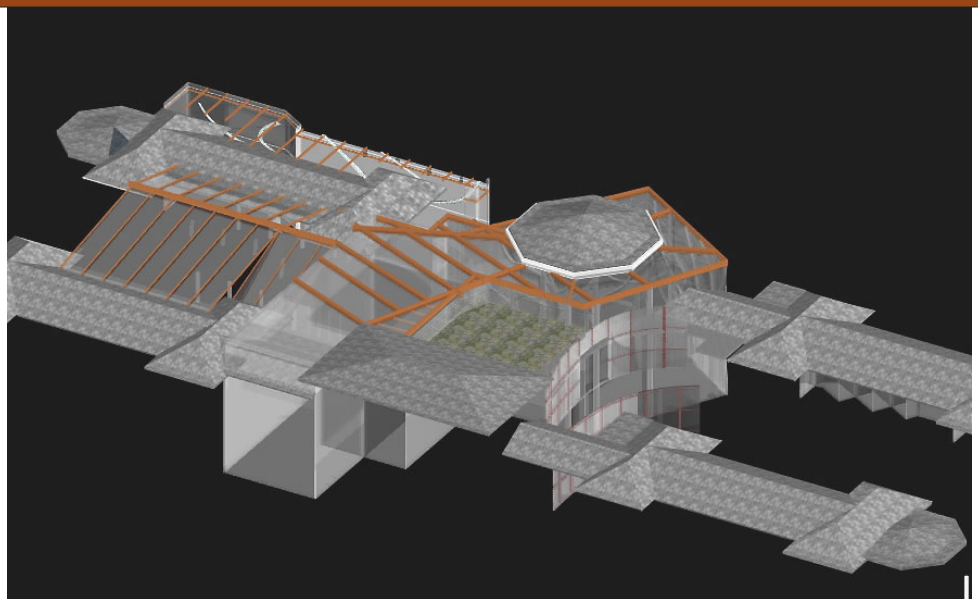




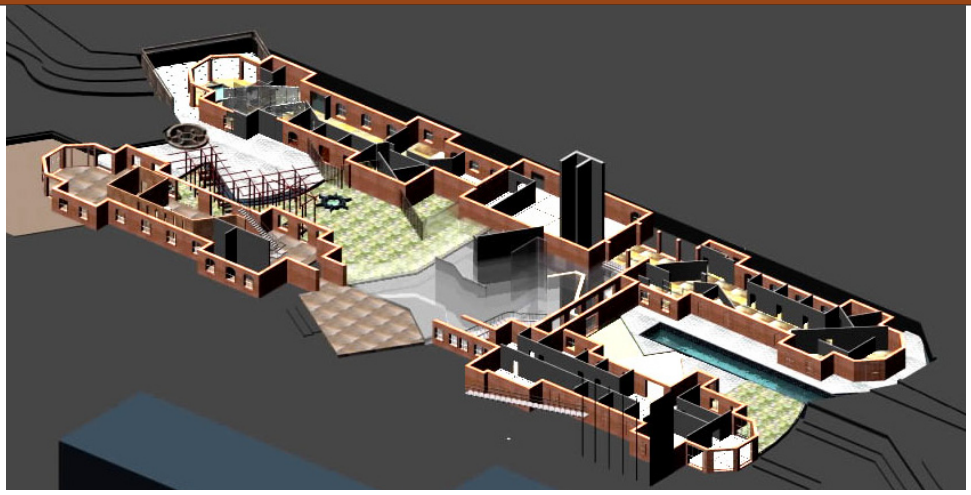








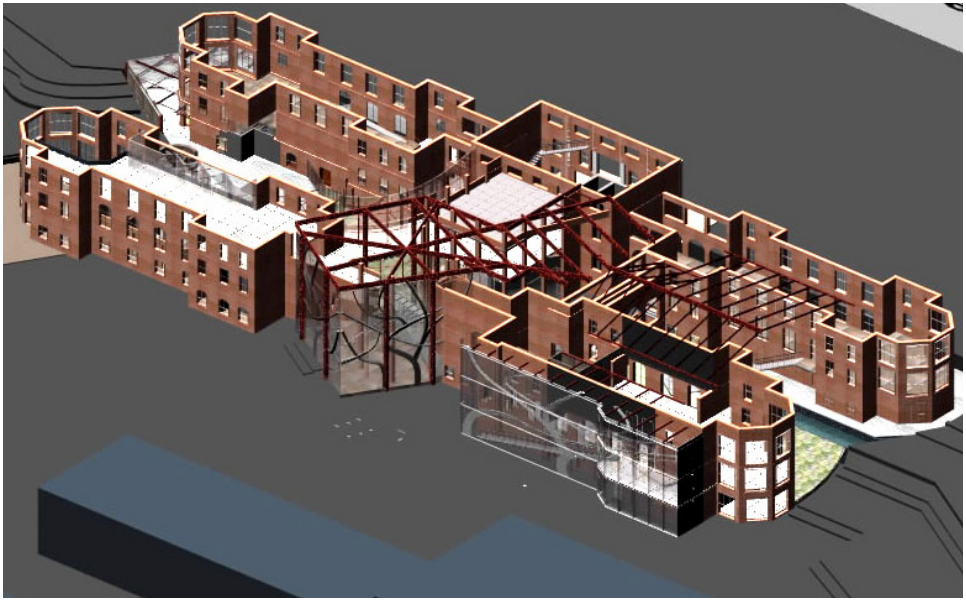
The aerial view of the roof plan illustrates the integration of old and new. The existing slate shingle roofs are shown in grey while the new atrium structure ties within and under existing is shown in orange. The central core has been converted into an atrium space lobby, waiting and gathering space. The north courtyard is partially covered to create protection during the winter months while incorporating solar gain through photo voltaic screened glass in roof structure. A rooftop garden is shown in green above the new library.

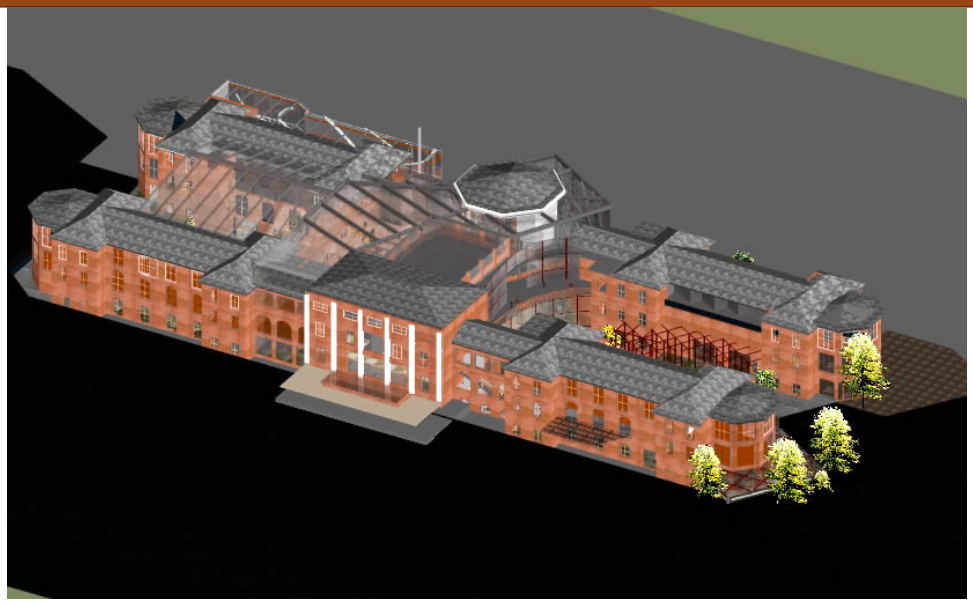


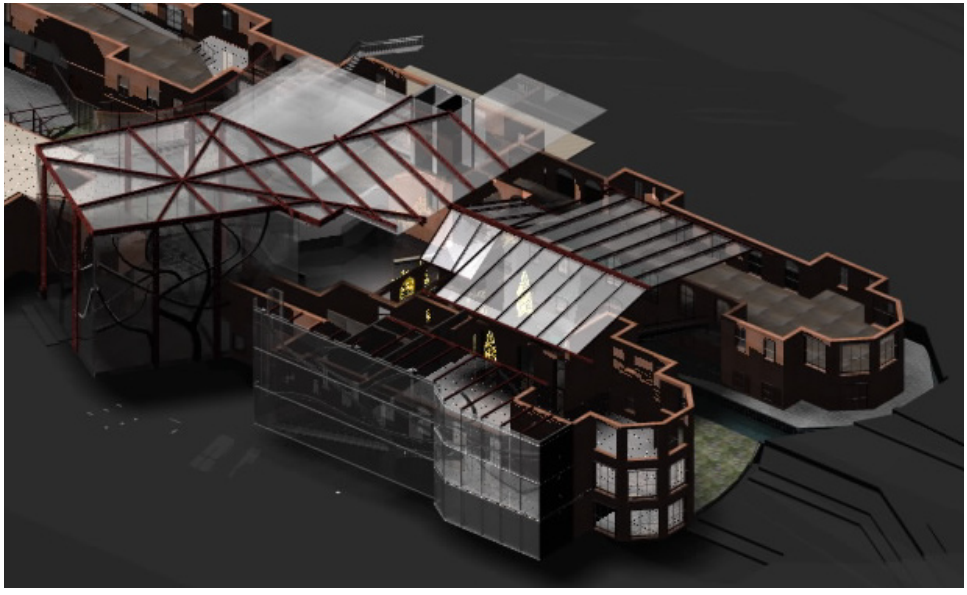
First Floor

Second & Third Floor

Existing Structure shown in brick, New structure shown in wood and glass at entry leading to the atrium core and over the north courtyard.







CONCEPT STATEMENT
PLANS
VIEWS
SECTIONS
DETAILS
MODELS
SUMMARY

SUMMARY

The findings of this thesis were heavily influenced by the programmatic issues of bringing together the healing arts into an environment that reconnects the community to open space as well as the environmental conditions found in the site analysis. The Body Solutions Center developed into a version of a destination spa within reach both in distance from the workplace as well as economically. The exploration of form within the strict constraints of the gridlike existing structure were derived from the fluid movement of the human body overlaid with the surrounding proportions of the site . The connections and intersections defined interior movement of spaces attempting to cross the lines of segregation between the interior and the exterior.

CHAPTER FIVE

CONCLUSION

DISCUSSION

RECOMMENDATIONS

SUGGESTIONS FOR FUTURE RESEARCH

Discussion

Discovering for the first time that you have a health problem very few if any doctors are familiar with sends you on a long search for answers and help. More people suffer from celiacs disease today and continue to be mis-diagnosed and subject to unnecessary surgical procedures. These procedures barely scratch the surface on healing their bodies because whole health has to be addressed at the roots. The fact that there are no health centers that have gone back to nature for the basics of healing the body is what lead me to this thesis.

> Search for an answer, 'there are no secrets'. We live in a pattern with hidden movements that if followed a path could be found. But in most cases it takes a long search to only find the idea or movement that was there at the beginning, all along. Listen for the hidden process. To find this it is a process of growth not confusion as it might seem. Once you find the ruth, its the truth to harness. Peter Brook.

Our society is full of confusion especially on what to eat and how to take care of the body. The Body Solutions center is designed to provide the education, the proper diagnosis of health problems with individualized natural solutions for healing, a place of fitness and to simply relax and cleanse the body on a regular basis. Understanding the body and the blood that moves through it was the first step needed to understand how elements of design and our environment affect our wellbeing. It was then necessary to study a wide range of health care facilities as well as health spas and retreats in order to find the appropriate combination of them all, a crossings of western and eastern philosophies. The close proximity of this facility to the Naval Medical Center

plays a critical role in combine the traditional medical field with the alternative one. For true balance there must be elements of both.

The Body Solutions center can not be categorized into one type of facility. In order to achieve the balance we can not isolate the type, therefore my typology is an integration of Healthcare facilities, educational, restaurant and market, resort spa facilities and most important, the feeling of home. The facility is encompassed by a beautiful landscape of trees and gardens that weave between the fingers of the building creating an interior landscape of its own.

Recommendations

"...it is our senses which reconnect us with the natural world and through which we can experience the garden as a healing place." Minter (1993:7).

Our senses working together to create harmony, life balance and vitality. A cleansing place such as the Japanese bath house and the use of healing gardens will unblock the four energies, body, social, sensual and mind and spirit.

The Body Solutions Center will become an Urban health retreat if such a thing is possible. A journey inward must take place when the physical distance travelled is minimal. The long winding slow travelled rural road that leads you far away to a restful and peaceful place is not an option with this project. It is usually that time of physical travel that allows one to slow down and detach from the pressures and stress of daily life. How do we unplug and rejuvenate in a setting just blocks from our work place and homes? The Body Solutions center is designed as the Walkable Retreat, where the therapy begins the second you lock up shop and begin your walk or ride through downtown Newport, passing through the Historic Point district, the Ball field, parks or maybe the cemetery and finally under the Newport Bridge to the welcoming entrance garden of fountains within the new brick marketplace. You catch a slight spray of water from the breeze as you enter the lobby where cell phones and shoes are checked into their resting place as you slide your slippers on and let the transformation continue.

> "There are no formulas here. It's a different culture, a different world. It's an INDIVIDUAL experience, every time. Is it possible to have more than one trip of a lifetime?"

I believe it is possible if you are willing.

Suggestons For Future Research

The research done on this thesis was only the first step in understanding the need and how to best solve it. A more in-depth study of feng shui and interior spaces would more clearly define the movement and energy within the structure as well as the change of occupancy shift that occurred from converting an isolated abandoned building into a place for the community. Additional research on adaptive re-use projects of historic buildings would also be a next step in identifying more of the architectural elements throughout the project and how best to solve those issues of connection and change.

This thesis has been about awareness and opening the eyes of those in need. At this point it is important to study the alternative therapies more in depth to determine how they can best be incorporated into the Naval Medical Centers successfully. The reality is that a large number of Sailors and Marines are paying out of pocket for alternative therapies that work, and a survey and study needs to be conducted and documented to back this thesis and give it the leverage to move forward.

Appendix A

References Cited

D'Adamo, Peter J., Dr. Live Right For Your Type. New York, New York, 2001.

D'Adamo, Peter J., Dr. Cook Right For Your Type. New York, New York, 1998.

D'Adamo, Peter J., Dr. Eat Right For Your Type. New York, New York, 1996.

Gates, Donna. The Body Ecology Diet. Decatur, Georgia. 1996.

Minter, Sue. The Healing Garden A natural haven for emotional and physical well-being. London. 1993.

McHarg, Ian L. Design with Nature. Garden City, New York. 1969.

Weissberg, Steven M., MD, Christiano, Joseph, APPT. The Answer is in Your Bloodtype. Florida. 1999.

Lowell, Jax Peters. Against the GRAIN. Henry Holt, New York. 1995.

Pitchford, Paul. Healing with Whole Foods. North Atlantic, California. 2002.

SantoPietro, Nancy. Feng Shui and Health. Three Rivers, New York. 2002.

Whorton, James C. Nature Cures The History of Alternative Medicine in America. New York. 2002.

Hyman, Mark, MD. Paradigm Shift: The end of "Normal Science" in Medicine Understanding Function in Nutrition, Health, and Disease. Alternative Therapies. Sep/Oct 2004, Vol 10. No.5: 10-16.

Boye, William, Asimov, Isaac. Blood Groups and Antrhropology. Abelard-Schumann, New York. 1955

http://www.pbs.org/wnet/redgold/history. Oct 2004.

www.livingwithout.com. Oct 2004.

www.dadamo.com. Oct 2004.

http://www.dadamo.com/knowbase/citations/citation1.html. Oct 2004.

Crisp, Barbara. Human Spaces, Life-Enhancing Designs for Healing, Working, and Living. Rockport, Massachusetts. 1998.

Evans Wisner, Kathy. The Truth about MSG. Living Without. Winter 2004.

Martin, Simon. Eating for your type: Review of D'Adamo's recommendations. The Nutrition Practitioner, 2:1, 47-49, Feb 2000.

Moran, David, MD. Blood typing. Medical Tests Encyclopedia. Discover Health.com. October 23, 2004.

http://www.emedical.com.au/default.asp?pageID=5&TopicID=41. Oct 2004.

Boon, Heather. Verhoef, Marja. O'Hara, Dennis. Findlay, Barb. Majid, Nadine. Integrative Healthcare: Arriving at a working definition. Alternative Therapies. Sep/Oct 2004. Vol 10. No.5:48-56.

http://www.cnn.com/HEALTH/9705/20/blood.type.diet, Nov. 2004.

http://www.naturalovens.com/Better_Health/Scientific_Articles/index.php. Nov 2004.

Spurlock, Morgan. Supersize Me. May 2004.

www.commercialalert.org/copa.pdf. Nov 2004.

Jacobs, Jennifer. The Encyclopedia of Alternative Medicine. Massachusetts. 1996.

D'Adamo, James. ND. One Mans Food is someone else's poison. Toronto. 1980.

Kremer, Dan and Nancy. http://www.eatfoodforlife.com/index.html. Nov. 2004.

http://www.naturaltherapycenter.com/live_blood_analysis/. Nov. 2004.

http://tcm.health-info.org/WHO-treatment-list.htm. Nov. 2004.

www.armstrong.com, Armstrong World Industries. May 2005.

www.wwglass.com, Pilkington Architectural. May 2005.

Sweets 2005, A Division of the McGraw Hill Companies. 2005.

www.bradfordproducts.com, Bradford Products, LLC. May 2005.

www.betterbrick.com

Newport Daily News, September 2004-April 2005.

Wines, James. James Cutler. Rockport, Massachusetts. 1997.

Ching, Francis D.K., Winkel, Steven. Building Codes Illustrated. New Jersey. 2003.

Ching, Francis D.K., Adams, Cassandra. Building Construction Illustrated. New York. 2001.

Doczi, Gyorgy. The Power of Limits. Shambhala Boston & London. 1994.

AIA. Architectural Graphic Standards. Student edition. New York. 2000.

Haneman, John Theodore. Historic Architectural Plans, Details, and Elements. New York. 1984.

RSMeans. Building Construction Cost Data. 58th Annual Edition Massachusetts. 2005.

Uniform Buildling Code, Volume 1. California. 1997.

Allen, Edward, Iano, Joseph. The Architect's Studio Companion. New York. 2002.

Canizares, Ana G. Waterfront Retreats. New York. 2003.

Zevon, Susan. Outside Architecture. Massachusetts. 1999.

TeNeues. Spa & Wellness Hotels. Spain. 2002.

Phaidon. The Garden Book. New York. 2000.

APPENDIX B

The Body Solutions Center

Outline Specifications

Assignment #5

Detailing

Assignment #4

Jennifer Irwin

AR903 Design Studio

Spring Quarter, 2005

Outline Specifications

The following analysis is intended to identify key elements in subject adaptive re-use project with a focus on reusing, adapting and improving existing materials where possible. One major wing of the building will be demolished and materials such as the brick and concrete in foundation system will be recycled. Existing roof slate tiles will be re-used in landscape plan.

Division 2 SITE CONSTRUCTION

02815—Fountains, pools & water displays

1. Fountains. There will 3 fountains on site. One located at the entry, one in the south courtyard, and one on the west side of the building. Each will include lights w/mounting kits, 300 watt.
2. Swimming Pool Pumps. The 50-meter lap pool shall be equipped with a three phase, 200' chord, 7-1/2 H.P pump.
3. Fountain Pumps. Two fountains shall be equipped with single phase, 100' chord, and 2 H.P. pumps.
4. Water: An on-site water reclamation system collects storm runoff for reuse in toilets.

02825—Fences, gates & hardware

1. Fences and Gates. The existing chain link industrial fence (3 strands barb wire, 2" post set in concrete, 8' H) along the perimeter, approximately 1800 linear feet shall be removed and replaced with approximately 600 linear feet of wrought iron fencing to be relocated just north of the site to secure the Naval Station Medical Center. There are 2 existing double swing gates, posts

& hardware, one on Third Street and one on Cypress Street, both are to be replaced with equivalent wrought iron gate as shown on plans.

02832—Retaining walls

1. Retaining walls. The retaining wall on the south side of wing three shall be of random local stone 8' high and 2' thick with a concrete footing and stone 3' below grade.

02870—Site Furnishings

1. Benches. 8' long cast iron pedestal bench with back, arms and wood slats. Locations of benches are indicated on drawings.

2. Traffic Signs & Signals. A mid block pedestrian crosswalk with pushbutton and mast arm shall be located on 3rd Street at the entry to the parking garage.

3. Bicycle racks & lockers. A bike rack section shall be provided, powder-coated steel finish. There will be rack space for 60 bikes to encourage alternative clean commuting to center.

02900—Exterior Plants

1. Planting. Most existing shrubs and trees will remain in location on-site with minimal disturbance. Those indicated on the landscape plan will be relocated.

2. Shrubs. Local indigenous plants to be planted in prepared beds; Azalea 15", Rosemary 1 gal containers, dogwood, 3'-4'.

3. Plant bed preparation. Soil amendment and fertilizer shall be nitrolized redwood compost or equivalent of approved quality. The amendment will be based on the soil analysis. Planting backfill shall be a thoroughly blended mixture of 75% native soil and 25% of Nitrogen fertilized organic material and the following amendments:

A. Pre-plant Fertilizer (16-20-0) 1.00 lb/cu.yd

B. Gypsum

C. Iron Sulfate

D. Tiger 90 Sulfur

E. E-Z Wet 15 G

Mix thoroughly before backfilling holes.

4. Planters. There will be 14 wood square planters within the courtyard, 48" side, 24" high and 10 bench planters 96" x 48" sides and 36" high as indicated on landscape plan.

02950—Site Restoration & Rehabilitation

1. Corrosion Resistance. In the case of an unforeseen situation where pipes uncovered are in need of repair, plan to wrap and coat any pipes found that need restoration. 4" diameter will be added to each pipe using bituminous coating. Existing 4" & 6" potable water pipes run within building footprint and the 8" line runs around periphery of building. The storm drain sewer system has been recently upgraded to 10" PVC and 18" RCP and should not be in need of repair. All underground utilities must be identified and verified in the field prior to any excavation.

DIVISION 3 CONCRETE

03300—Cast-in-place concrete

1. Portland Cement: Per ASTM C150, Type I, Type II.

2. Water: Clean and free of substances injurious to concrete, per ASTM standards.

3. Aggregates: Natural washed sand and gravel or manufactured aggregates conforming to ASTM C33.

4. Reinforcements: Reinforcement steel conforming to ASTM A615, grade 60, or ASTM AA706, size as per drawings. Reinforcing steel shall contain a minimum of 30% recycled

materials. Welded wire fabric conforming to ASTM A185.

5. Forming: As required for exposed surfaces; for unexposed surfaces, any suitable materials may be used. Final finish of exposed concrete shall be 'light sandblast' in accordance with ACI 303, Section 9.4.

6. Mix Design: Concrete at building (entry/atrium foundation) footings and slab on grade shall be minimum 25 Mpa (3,000psi) at 28 days. Water-to-Cement Ratio not to exceed 0.55.

7. Vapor Barrier: Polyethylene film, 10-mil minimum thickness. Install at slabs between the sand base and the sand below the slab. Provide control joints for monolithic slabs in accordance with ASTM E50.

8. Expansion Joints: Conform to ASTM D1571.

9. Anchor Bolts: See drawings.

10. Color shall be integrated per the approved plans in accordance with ASTM C979.

DIVISION 4 MASONRY

04200—Masonry Units

1. Common building brick C62

2. Portland Cement: ASTM C150, Type II

3. Mortar Aggregate: ATSM C144

4. Hydrated Lime: ASTM C207

5. Grout Aggregate: ASTM C404

6. Mortar: ASTM-C-270, Type "S", minimum compressive strength of 1800psi at 28 days. Color to match existing mortar.

7. Grout: ASTM C476 13.8Mpa (2000 psi) at 28 days.

8. Reinforcing Steel: ASTM A615, Grade 60. Shall contain a minimum of 30% recycled material.

04082—Masonry anchorage, reinforcement & accessories

1. Accessories: Hot-dipped galvanized anchors and horizontal joint reinforcement.

2. Wall Ties. Wall ties to brick veneer will be rectangular type, galvanized, 1/4" diameter, 2" x 6".

04270—Glass Masonry Units

1. Glass Brick. Plain 4" thick 12" x 12" block integrated into flooring system as per drawings.

04400—Stone

1. Marble. Travertine 3/8" thick, 18" x 18" floor tiles for kitchen classroom and dining hall using a 1/8" grout.

2. Slate. Interior flooring, natural cleft, 1/2" thick, Vermont style (unfading green, mottled green & purple, gray & purple) 24" x 24" shall be used in bathhouse areas designated on plans.

3. Collected Stone. There will be rough stonewalls integrated into the landscape using random fieldstone, 5" to 18" thick.

DIVISION 5 METALS

05100—Structural metal framing

1. Structural Steel Columns. Existing steel W shape columns and beams shall be re-used where necessary and enclosed in masonry.

2. Straight run stairs. There will be two new stair runs 6' 4" width and two new stepped ramps 4' width with 3' treads. One will provide an separate entrance to the new lecture hall and the other will run through the atrium central circulation

space from the lecture hall across to the library level.

3. Railings and handrails. Stainless steel 2 rail 1-1/4" diameter.

DIVISION 6 WOOD AND PLASTICS

06180—Glue-Laminated Timber

1. Laminated Framing. A 40' clear span shall have 6 3/4 x 28 1/2" laminated roof beam with a capacity of 35 PSF, spaced at 24' O.C. Where new structure meets existing, the rafter will connect to bearing wall with the use of a side plate welded to steel bearing plate.

DIVISION 7 THERMAL AND MOISTURE PROTECTION

07210—Building insulation

1. Wall insulation. Rigid panels of calcium-silicate known as klimaplatte have been tested and proven to be effective on interior walls of historic buildings without causing condensation. The panels can be faced with plaster.

DIVISION 8 DOORS AND WINDOWS

08100—Metal doors and frames

1. Metal Frames. All metal frames shall be the types and sizes shown on the drawings. All hollow metal frames shall be 16 gauge and shall be properly reinforced for the hardware. All frames shall be mitered, welded and hot-dipped galvanized.

08200—Wood & plastic doors & frames

1. Doors. Salvage existing interior doors and re-use in locations indicated on plans. New interior doors shall be full flush design, solid core, fire-rated with oak face.

08300—Specialty Doors

1. Glass Door. Hinged swinging oversized industrial door shall be used where indicated on plans with 1/2" thick, tempered glass. The idea is to have a feeling of a large unobtrusive glass wall opening that will make the indoors feel like the outdoors.

2. Sliding Doors. Glass wood sliding doors with 1" insulating glass, 6' x 7' high shall be used in treatment rooms leading out to garden heliotherapy private rooms.

3. Overhead doors. 2 Roll up garage style wood framed doors with glass panes shall be used in kitchen classroom leading to courtyard gardens. Opening of 12' x 12' high.

08348—Sound Control Doors

1. Acoustical doors. Acoustical doors shall be used on meditation rooms, treatment rooms and pilates/yogo studio of both solid core wood including framed seals, 3' x 7' and steel 45 STC rating.

08400—Entrances & Storefronts

1. Sliding Panels. On main entrance, east side, there will be mall front sliding panel doors, aluminum & glass 15' x 9' high to include mat activated, panic push out, operator & hardware.

2. Existing main entrance 6' metal and glass door on west side shall be replaced with full vision glass doors with 1/2" glass, 10' x 12' high

08505—Metal windows 08550—Wood windows

1. Existing metal windows shall be replaced with operable double hung wood

windows to reflect the original historic window configuration as shown on elevation. Salvage and re-use existing limestone sills. A number of windows within the courtyards will be removed completely and left as wall openings in the covered section of the north courtyard and others in the south courtyard will be replaced with doors or larger window configurations as noted on the plans.

08800—Glazing

1. Acoustical glass. To be used on fitness and studio exercise doors, 1 lite 3/8" for 1" thick.
2. Laminated Glass. Laminated photovoltaic glazing generates electricity while filtering daylight through the entry and atrium space. Glass shall have a ceramic painted pattern fired onto on surface, color and pattern shown on drawings.

08950—Translucent Wall/Roof Assemblies

1. Skyroofs translucent panels, 2 3/4" thick, laminated glass. Lean-to skyroof, long span.

APPENDIX C

USER GROUP	UBC SECTION	SPACE	LOAD FACTOR	OCCUPANT	ACTUAL SQ FT	ALLOWABLE SQ FT
Table 3-A			Table 10-A	Sqft/Load factor		Table 5-B
A-2.1	303.1.1	Auditorium/Lecture Hall	7	571.43	4000	
		Large Training Room	7	342.86	2400	
				A-2.1 total	**6400**	29900
A-3	303.1.1	Dining Hall	15	133.33	2000	
		Restaurant	15	180	2700	
		Café	15	66.67	1000	
		Mens Fitness Center	50	56	2800	
		Mens Spa	50	40	2000	
		Womens Fitness Center	50	56	2800	
		Womens Spa	50	40	2000	
		2 Yoga/Pilates/Dance Studios	50	68	3400	
		Library	200	7.68	1536	
		Kitchen/classroom	20	89.6	1792	
		Lobby	7	75	525	
		Waiting Room	3	66.67	200	
		Lap Pool	50	106	5300	
				A-3 total	**33353**	29900
B	304.1	Therapist Offices	100	12.6	1260	
		Admin Offices	100	9	900	
		14 Treatment Rooms	240	0.625	2100	
		Conference Room	15	36	540	
		Consultation Room	240	1.25	300	
		Blood clinic	100	12	1200	
		Storage	300	4.5	1370	
		Elec/Mech space	300	0.33	100	
				Group B total	**7770**	39900
E-3	305.1	day care	35	12.8	450	45200
Other	402	Atria			5000	
				Total bldg SF	**45881**	**144900**
Additional Program for surrounding buildings						
S-3	311.1	Parking Garage			125,000	
M	309.1	Market	30	500	15,481	
R-1	310.1	24 Guest Villas	200	1.75	8400	
		music rooms				
		Art rooms				
		outdoor pavillion				
		gardens				
		outdoor heated pool				

TYPE OF CONSTRUCTION	REQ. W.C. M/F	REQ. LAV. M/F	REQ. EXITS	EXIT WIDTH occup x .2	MIN DOOR WIDTH	EXIT DOOR WIDTH	REQ EXITS	MIN EXIT DOOR HEIGHT
Table 5-B	Appendix Ch29		Table 10-A	Table 10-B	36"			1003.3.1.3
Type II F.R	5M/9F	3M/3F	2	114	36	3.17	4	6' 8"
Type II F.R	4M/8F	2M/2F	2	68.4	36	1.9	2	6' 8"
Type II F.R								
Type II F.R	4M/4F	4M/4F	2	26.6"		36	2	6' 8"
Type II F.R	4M/4F	4M/4F	2	36"		36	2	6' 8"
Type II F.R	2M/2F	2M/2F	2	13.3"		36	2	6' 8"
Type II F.R	2M/2F	2M/2F	2	11.2"		36	2	6' 8"
Type II F.R	2M/2F	2M/2F	1	8"		36	1	6' 8"
Type II F.R	2M/2F	2M/2F	2	11.2"		36	2	6' 8"
Type II F.R	2M/2F	2M/2F	1	8"		36	1	6' 8"
Type II F.R	2M/2F	2M/2F	1	6.8"		36	1	6' 8"
				20"		36		
Type II F.R			2	15"		36	2	6' 8"
Type II F.R			2	13.2		36	2	6' 8"
Type II F.R			2	21.2		36	2	6' 8"
Type II F.R								
Type II F.R	1M/1F	1M/1F	1	2.52"		36	1	6' 8"
Type II F.R	1M/1F	1M/1F	1	1.8"		36	1	6' 8"
Type II F.R	1M/1F	1M/1F	1	.125"		36	1	6' 8"
Type II F.R			1	7.2"		36	1	6' 8"
Type II F.R			1	.25"		36	1	6' 8"
Type II F.R	1M/1F	1M/1F	1	2.4"		36	1	6' 8"
Type II F.R			1	9"		36	1	
Type II F.R			1	.06"		36	1	6' 8"
Type II F.R								
Type II F.R	1M/1F	1M/1F	2	2.56"		32"	2	6' 8"
	3M/5F	1M/2F	2	100	36	2.78	3	6' 8"
	1/VILLA	1/VILLA	1	.35"	36	32"	1	

CODE ANALYSIS

THE BODY SOLUTIONS CENTER

Newport, Rhode Island
Jennifer M. Irwin

PROJECT DESCRIPTION:

An Integrative healing arts spa and resort project consisting of 5 existing abandoned structures to be re-used and 24 individual guest villas along the waterfront. The existing Newport Naval Hospital, Building 1, will facilitate a two story Blood type clinic, research and education center for nutrition and lifestyle changes as well as a mens and women's separate fitness center and bath house. Existing Building 45 is a three story abandoned office building to be converted into a lofty one story health food market and cafe, Building 7 is a three story abandoned laundry services building to be converted into retail space, building 57 is a two story residence to be converted into a bed and breakfast, and building 62 is the abandoned chapel to be converted into a restaurant. New construction will be a two level underground parking garage with rooftop gardens and the 24 guest villas along the waterfront.

Site Area: (Note: All areas are in Square Feet)		568,320 (13 Acres)	
Parking Garage Area:		125,000	PHASE I
Building 1	Health Center	45,881	PHASE I
Guest Villas	24 Villas	8,400	PHASE I
Building 45	Market	15,481	PHASE II
Building 7	Retail	8,064	PHASE II
Building 57	Bed & Breakfast	5,780	PHASE III
Building 62	Restaurant	7,348	PHASE III
Total Building Area		**215,954**	

BUILDING CLASSIFICATION

Occupancy Classification	UBC Section		
	303.1.1	Auditorium	A-2.1
	303.1.1	Health Center	A-3
	304.1	Offices	B
	305.1	Day Care	E
	311.1	Parking Garage	S-3
	310.1	Guest Villas	R-1
	402	Atria	
Mixed Use Required Separation	302.3 #4	Between A-2.1 and A-3	No requirement for fire resistance
	Table 3-B	Between A-2.1 and B	1 hr
		Between A-2.1 and E	No requirement for fire resistance
		Between A-3 and B	No requirement for fire resistance
		Between A-3 and E	No requirement for fire resistance
		Between B and E	1 hr
		Between S-3 and all	Garage as separate and distinct building
		Between R-1 and all	Guest Villas are separate and distinct buildings
Atria	Table 4-A	Special Provisions	Height in stories, 3-4 Minimum clear opening, 20 feet Minimum area 400 square feet
	402.1	Automatic sprinkler protection throughout is required	Existing building has automatic sprinkler system installed
	402.3	Atria shall be separated from adjacent spaces by not less than one hour fire-resistive construction	Exceptions: 1. The separatoin between atria and tenant spaces that are not guest rooms, congregate residences or dwelling units may be omitted at three floor levels.
	Note: The atrium will be at three levels where open exit-access balconies are permitted.		
			Openings in the atrium enclosure other than fixed glazing shall be protected by smoke-and draft-control assemblies conforming to Section 1004.3.4.3.2.

Type of Construction	601	A-2.1 Auditorium	Type II F.R.	
		A-3 Health center	Type II F.R.	
		B Offices	Type II F.R.	
		E-3 Day Care	Type II F.R.	
		S-3 Parking Garage (underground)	Type I F.R.	
		R-1 Villas	Type V 1HR	
Location on Property -- Exterior Wall and Opening Protection	Section 503 Table 5A	**Exterior Walls -bearing and non-bearing**		
		A-2.1 A-3 Type II F.R.	4HR N/C bearing NR N/C elsewhere nonbearing	
		B Type II F.R.	2HR N/C elsewhere bearing NR N/C elsewhere nonbearing	
		E-3 Type II F.R.	4HR N/C bearing NR N/C elsewhere nonbearing	
		S-3 Type I F.R.	2HR N/C elsewhere bearing NR N/C elsewhere nonbearing	
		R-1 Type V 1HR	1HR	
		Opening protection		
		A-2.1, A-3, B, S-3	not permitted <5ft protected <20ft	
		E-3	not permitted <5ft protected <10ft	
		R-1	not permitted <5ft	
Allowable Floor Area Building 1	Table 5-B	A-2.1 (Type II F.R.)		29900
		A-3 (Type II F.R.)		29900
		B (Type II F.R.)		39900
		E-3 (Type II F.R.)		45200
	504.2	Area increase of buildings over One-story		29900 x 2 = 59800 29900 x 2 = 59800 39900 x 2 = 79800 45200 x 2 = 90400
	505.3	Area Increase with approved automatic sprinkler		59800 x 2 = 119600 sqft 59800 x 2 = 119600 sqft 79800 x 2 = 159600 sqft 90400 x 2 = 180800 sqft
	504.3	Allowable areas of mixed occupancies		6400/119600+30025/119600+7770/79800+450/180800 < 1
		a2.1/A2.1 + a3/A3 + b/B + e3/E3 < 1 a2.1, a3, b, e3 equals actual area A2.1, A3, B, E3 equals allowable area		
	Table 5-B	Parking Garage (S-3 Type 1 F.R.)		unlimited
	Note: Allowable square footage is well above programmed square footages.			
Allowable Height	Section 506	A-2.1 (Type II F.R.)		4 stories-160'-0"
	Table 5-B	A-3 (Type II F.R.)		12 Stories-160'-0"
		B (Type II F.R.)		12 Stories-160'-0"
		E-3 (Type II F.R.)		4 stories-160'-0"
		Villas (R-1 Type V 1HR)		3 stories-50'-0"
		Parking Garage (S-3 Type 1 F.R.)		unlimited
	Note: Heighest point in project is the 3 story central core which is at 50', well within code allowable height limits			
EGRESS REQUIREMENTS				
Minimum 2 Exits Required	1003	Occupant loads over the prescribed amount on Table 10-A all require a minimum of 2 means of egress		Auditorium Space 4000sqft/7sqft load factor = 571 occupants which is > 50 therefore 2 exits are required

Minimum Width Required	Table 10-B	Exit width required: .2"/person			571 x .2 = 144" 144"/32" = 4.5 exits Therefore: 5 exits req.
	1003.3.3.2	44" min width required for stairs 0.3in/person			571 x .3 = 171" 44" min req for all
	1006.3.3	Exterior Stairs Open on not less than two adjacent sides			OK
	509	Guardrails			42" min height
	1006.3.5	Exterior Exit Balconies Wall construction Opening protection Ceiling construction			44" min width 1HR no requirement 1HR
Separation of exits	1004.2.4	**Space**	**Diagonal**	**1/2 of diagonal**	**OK**
		Wing 1	96'	48'	OK
		Wing 2	112'	56'	OK
		Wing 3	112'	56'	OK
		Wing 4	112'	56'	OK
		Core	160'	80'	OK
	402.5 Atrium	Atrium	132'	66'	OK
		Atrium travel distance, not more than 100 feet of travel distance from section 1004.2.5 of 250' which is 350' or less			
Travel Distance	1004.2.5.2.2	Sprinklered buildings Travel distance shall not exceed 250 feet			All <250'

ACCESSIBILITY

	1105.2.1	Bathing Facilities One of each type of fixture or element in each accessible toilet room shall be accessible. This is the case for bathing, toilet, and lavatories.	
		Doors	32" min clear
		Ramps	1:12 max <1:20 or 5%-no handrails
	1105.4.8	Assembly areas Wheelchair space shall be provided in accordance with Table 11-A.	
	Table 11-A	Capacity of seating 301 to 500 requires 6 wheelchair spaces	

COST ANALYSIS

THE BODY SOLUTIONS CENTER
Newport, Rhode Island
Jennifer M. Irwin

The Cost Analysis for this project is based on cost per square footage found in RSMeans Facilities Construction Cost Data, 20th Edition, 2005. The original existing building footprint is approximately 36,209 square feet and the total building area is 108,624 square feet. Wing 5 indicated on the attached plan will be demolished and the remaining 84,789 useable square feet will be renovated into approximately 43,345 useable square feet upon asbestos and lead abatement completion. The Naval Hospital, Bldg 1 was built in 1900.

BUILDING 1 HEALTH CENTER

1. Total Base Cost:	**Project Sqft**	**Type**	**Unit Costs 3/4**			**Total Cost**
	43,345	Clubs YMCA	145			$6,285,025.00
Additional Cost		Asbestos and Lead Abatement				$808,306.00
						$7,093,331.00
2. City Cost Index:	**Base Cost**	**Location factor**	(Newport, RI)			
	$7,093,331.00 / 100	105.6	=			$7,490,557.54
3. Project Size Modifier:	**Proposed Area**	**Type**	**Typical Size**	**Cost Multiplier**	**Median cost/sf**	
	43,345	Clubs YMCA	28,000	1.55		
			145	0.97	140.65	$6,096,474.25
4. Escalation Factor of 10% (2+ years at 4%/year)				0.1		$609,647.43
						$6,706,121.68
5. Architectural Fee Sec R01 107-010, total project size over 5M= 9.5%				0.095		$637,081.56
						$7,343,203.23
6. Dollar amount over budget				0.1		$670,612.17

7. Five ways to reduce the project cost:	Reduce Landscape 5% for future phasing will reduce project costs	
	Currently all windows in existing structure are scheduled to be replaced. Reducing the number 50% replacing only critical windows will reduce project cost by approx. $160,900	
		$6,706,121.68
		-$160,900.00
		$6,545,221.68
	The project calls for completely gutting each wing including all floors within. Propose gutting only the west facing wings, wings 2 and 3 and leaving the floors in place in wings 1 and 4. This will drop project costs approximately $142071	
		$6,545,221.68
		-$142,071.00
		$6,403,150.68
	Depending on the state of the heating, ventilation, AC and electrical the cost savings could be significant. The typical percentage of construction costs for heating, ventilating and AC is 11.35% and the electrical is 12.2% of total costs. The heating system is boiler/radiator heat which is serviced by the nearby steam plant. The electrical system has been upgraded to include a backup generator that is functioning today. A total of 23% of project cost would be a cost savings of	
		$6,403,150.68
	-0.23	-$1,542,407.99
		$4,860,742.69
	Existing foundation system and skin of structure to remain in place which is a percentage of cost that could be identified and added to the cost savings.	
	REVISED PROJECT COST	**$4,860,742.69**

GUEST VILLAS